

WHY BE CHILDLESS ?

By the Same Author

SEX AT CHOICE (*Eighth Impression*)

NATURE'S LAW OF BIRTH CONTROL

(Second Impression)

WHY BE CHILDLESS ?

By
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AUTHOR'S PREFACE

WHILE I was engaged on this book a young wife asked me: "Why on earth are you writing about how to have children when the whole world is seeking how *not* to have them?"

My answer was: "You are speaking for yourself, as nearly everyone nowadays does. To-day you, having just had a baby, require a good rest; possibly you imagine that you will never want a second; but the time will come to you, as to almost every wife, when you will be longing for another baby. And, quite possibly, the second may fail to arrive—such sterility is all too easily acquired. Then it is conceivable that you may condescend to study this book."

Since the whole trend of civilisation is to curtail the inclination and powers of procreation, so it is a fact that England possesses an ever-growing number of sterile women, quite one in every seven being incapable of producing children. Doubtless also there is a percentage of men who are equally incapable, but with them this book is not concerned.

One woman in seven does not seem a great number, but there are also two or three in seven who experience

many an apprehension, many a doubt, as to whether they will ever produce more than one child; or if, having a daughter, they can have a son, or vice versa. And it is for these cases that I have written this book. A woman has always got to bear the burden of her sex—if it be an overwhelming one she may go under; but usually the back is equal to the burden. On the other hand, it may be a light one, an easy one, a pleasant one, perhaps even a delightful one, though this must depend on the mentality of the woman who carries it. Nevertheless, a burden it must be, and remain, from the cradle to the grave.

What, with my humble efforts, I have endeavoured to do is to enable my sister-women, both morally and physically, to lighten their burden. Metaphorically speaking, I would help them to shift it from one side or the other, according to their need, as also to strengthen their muscles, and enlarge their understanding of Nature's laws, that they be better able to tread the path, successfully and joyfully, that we of the weaker sex have always to tread.¹

When I wrote "Sex at Choice" and "Nature's Law of Birth Control" I touched on several aspects of health before and after pregnancy, and the care of

¹ Byron wrote :

" There is a tide in the affairs of women
Which, taken at the flood, leads—God knows where ! "

Let them see to it that it lead them to verdant paths of joy and peace, rather than along the road of fretful disillusion and despair.

infants within the first weeks. In these books I also explained the reason and method by which the exact times and dates can be known when a boy or girl may be conceived—or no child at all—according to the laws of Nature, *at will*. Here I merely touch on the formulæ necessary to ensure that the parental wish shall be gratified. But for further guidance, explanations and detailed physiological facts relating to these matters I refer my readers to my former books, for in this one my whole thought has been concentrated on the possibilities of motherhood for every woman who is desirous of having a child of her own. Had I not been able to help with my advice great numbers of “sterile” women, married for many a long year, and becoming hopeless as time passed on with no result, who were subsequently able to see their dearest wish realised by becoming “joyful mothers,” I would not embark on such a work. For there are an untold number of hand-books published on sterility, so that the subject must be worn threadbare, and yet perhaps the most important side of it has scarcely been touched on—that of its prevention! Prevention in babyhood, in growing girlhood, in wifehood, and in *first motherhood*. For millions of wives may have *one* child, though a second may never be achieved.

Again it is my object to display sterility as being a condition often dependent on small, hitherto disregarded, causes, such as :

1. A lack of suitable diet.
2. A lack of proper living.
3. A lack of knowledge of sex-laws.
4. A lack of commonsense and healthy mentality.
5. A lack of understanding of the only proper days, week, or month on which each person may conceive.

That such sterility should be vanquished is all the more important in view of the ever-increasing propaganda of what is nothing less than race-suicide in our country ; for the duty of every patriotic wife, if she be healthily and happily wedded, is to strive for offspring, and, having children, to see that the baby-girl be given a fair chance in her turn of some day becoming a mother. Furthermore, I wish to emphasise (as I do in my last chapters) how much can be done to save the "slaughter of the innocents" which is continuing in our midst.

When one realises that birth-control has become so monstrous and all-devouring as to reduce Great Britain's birth-rate to the lowest in Europe, and to provide us with no less than 1,500,000 married couples who are childless, the least we can do is to make a very real effort to save those little ones that may yet be born to us. As a race we are still far ahead of all others in the matter of enlightened motherhood, in regard to which it is sufficiently significant that the word "nursery" has no counterpart in any other language ; whilst in every civilised

country the English "nannie" is to be found. Who has not heard of Miss Brown, who has for years been one of the most important women in Europe? The circumstances that led to her being called the "Uncrowned Queen of Italy" were these. When the Crown Prince Umberto was a child he was sickly, and the Queen was nervous as to his health. Realising that English nurses were well trained, that they understood the proper principles of fresh air treatment for children, and that they knew how to form juvenile character, she asked one day to see a certain British official then occupying the post of military attaché, with whom she was well acquainted. "Will you help me to get a competent English nurse for my son?" said the Queen. The Englishman immediately telegraphed to his sister in London, with the result that through her good offices in a few days a demure woman in a black dress, of the sound Anglo-Saxon name of Brown, reported to the royal palace. Under her attention Prince Umberto made such surprising progress both in mind and body that in six months time the Queen and the King came to the conclusion that the English nurse was a marvel, whilst at the end of the year Miss Brown was popularly regarded as the most important woman at the Court.

We may have cause to be satisfied with the enormous strides made regarding the infant death-rate within the last twenty-seven years. It has been exactly halved, whereas, in sorry contrast to us, in France,

where the birth-rate is barely a fraction higher than ours, the death-rate continues to increase. There were actually 1,500 more deaths of children under a year old during the third quarter of 1927 than in the third quarter of the previous year.

But before we congratulate ourselves too heartily, let us examine into a certain weak point in our harness, in fact a grave discrepancy in the condition of affairs, hygienic and otherwise, concerning the death-rate, which has actually been stationary since 1900, of our very young infants, those of *less than a month old*. Incidentally, we have also to admit that the mortality of women has remained absolutely stationary for the last twenty years, that we are still losing 3,000 women a year in child-bed, whilst those indirectly fatally affected, or permanently disabled, are all round us.¹

For three thousand British mothers thus to die each year may not seem a very serious matter, when India with each generation see 3,400,000 child-wives die in child-bed. But for a country which has the reputation of being in these matters the most enlightened in the world it must be frankly admitted that there is little room for satisfaction in the un-

¹ The following message was sent by the Queen to the Maternity Mortality Conference held on February 28th, 1928, at the Central Hall, Westminster: "The Queen views with grave concern the continued high rate of maternal mortality. Her Majesty feels that a very real endeavour should be made to remove this reproach from our national life. The Queen considers that the time has come for concerted action to be taken in dealing with so pressing an evil, and will await with interest the conclusion of this conference."

palatable fact of *no progress* having been recorded in this grave condition of a whole generation ago.

In this field I believe there is still a big work to be accomplished, and it is up to us women to discover the causes—for there must be many—so as to prevent this unnecessary loss and suffering.

Speaking as a woman, it is continually being brought home to me that Hygiene (with an especially big H) has advanced so rapidly as to be in danger of leaving Humanity far behind! And yet there is nothing Humanity hugs closer than common sense! In these chapters I have touched on a few matters and conditions which had I not seen I would scarcely have credited, and which I am convinced are largely responsible for a grave state of affairs which calls for immediate overhauling and amelioration. And to this end I urge medical authorities and the nursing sisterhood—putting aside professional prejudice with its stranglehold on humanity, and the odious sufficiency of red-tape that holds all progress in leash—to face certain facts, and, while recognising the errors of the past, to try and put themselves in the place of their patients for the time being, and to endeavour to imagine how *they* would like to be treated were *they* one of those mothers in her time of trial; or again just one of those new-born babes striving to obtain a foothold on the threshold of life. When in these enlightened days one still can talk with bated breath of the perils of child-bed, one

scents some grave delinquencies in the present system every bit as disastrous as those prevailing 25 years ago. It is by studying not only the work of other doctors, but also the lives of other people, that medical men can attain to the full measure of their usefulness to mankind. That each day nine of Britain's mothers die in child-birth, or one to every 250 babies born, that each day over 800 little babies expire within four weeks of birth, whilst 25,000 are still-born every year, goes to prove that there is something very wrong in present-day "up-to-date" methods to which such figures appertain. It is such facts as these that impel me to speak out what it has been in my heart to say for many years. If I have emphasised certain statements too crudely, I crave the indulgence of my readers, as I urgently beg also for the co-operation of the mothers, nursing sisters and medical practitioners who may chance to read this book, in my endeavour to reduce to some real extent the mortality of our sister-women in child-birth, and of that huge army of little ones so ineffably precious to the race.

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WHY BE CHILDLESS ?

I

MOTHERS ALL

Constant rotation of the unwearied wheel that nature rides upon, maintains her health, her beauty, her fertility.—
COWPER

TO say that all women are born mothers would appear at first glance to be a rather inept suggestion. Worse still, it would seem grossly inaccurate. Yet the addition of the word “potential,” whilst rendering this statement platitudinous, would only to a certain extent enhance its accuracy.

The fact is that, the sex of a child being determined from the first moment of conception, the embryo, if it be female, carries in itself the germinal epithelium from which all the ova are eventually developed ; so that at birth the baby-girl’s ovaries already contain, though in an immature form, the full number of cells that are contained in the adult ovaries, whilst the formation of new ova ceases entirely with the birth of the child. Thus the gradual development of those cells takes place prior even to the birth of a woman-child, and it has been estimated that those two infant ovaries carry no less than 70,000 egg-cells, or ova, capable of further growth, and of full and great

development if fertilised. In fact any one of them, provided they attain maturity, may become a zygote, or fertilised egg, which in its turn becomes a human embryo—a foetus, a living being.

Thus, your infant daughter, from birth, is more than a “potential mother,” in that she carries within her all the cells that she will ever possess, and each of those 70,000 ova is either male or female, having its own unalterable sex, according to the ovary from which it is derived. The right ovary—a little the larger of the two—carries the male ova; the left one, a trifle smaller, carries the female egg-cells only. To emphasise the fact of this maternal precocity one has only to realise that the infant carries far more germ cells at birth than when she reaches puberty; whilst at the age of 12 or 14 she possesses many more than she will when reaching maturity. In the case of those cells it is a question of the survival of the fittest, and just as in the case of fruit or flower it is only the strongest seed or bud that ripens or blossoms, so is it with the ova in a child's ovaries; thousands of follicles never mature, but atrophy and disappear to make room for those that will survive.

In the infant boy there exists no such paternal development. That this elaborate preparation for parenthood from the cradle is characteristic of the female infant only is shown by the total absence in the male baby, the boy or the youth under the age of 15 or 16, of any fertilising constituents, and the

seminal fluid of the younger boy contains no spermatozoa. In no case is their preparation a long and careful process as is that of the ovum. In size also the ovum is much the larger and more important, the diameter of the ovum being forty times greater than the length of the spermatozoa's head, which contains the nucleus or essential portion. In fact, the spermatozoa are the smallest cells in the body.

Thus, while it is only with adolescence that paternal potentiality develops in boys, anatomical data all go to prove the truth of my contention that every girl-child is a mother in the making. That the ova she carries may never be fertilised does not alter the case one iota, any more than the possibility of her zygote (or fertilised egg) failing to achieve fruition, or again of her embryo or foetus being blighted and cast off before reaching that stage of development necessary to viability. Similarly we may add that in spite of a woman being unable to bear a living child, it cannot be said that she was never a mother. She may have had miscarriages, or infants still-born ; but her maternity will have been called into play as fully as the mother of living offspring which might have been removed at birth from her permanent care and supervision.

This is the obvious explanation of the numbers of childless women whose maternal instincts appear often to exceed those of mothers of families. In great numbers of married women, childless or other-

wise, we see the mother first and the mother last—the mother real, active, achieving, vital—or the mother latent, yet advancing to fulfilment. Or again, and here is tragedy—the mother thwarted, starving, aching, whose very soul looks out of her eyes, calling like Rachel: “Give me children or I die.” Whilst in older women I see—in vast numbers of cases—a further great and wonderful motherhood, shining right through them, powerful, perfect, glorious, or, again, sorrowful, embittered, forgotten or abandoned. And in the girl-children in their teens, the young women, unmarried, though probably betrothed, or, on the other hand, wedded to their career, their business, their art—in each and all can be traced, in a varying degree, the touch, the breath of maternity, latent, mostly hidden, lying in wait, biding its time, held in check, dormant or wideawake, partly blighted or complete—all this can be seen by the observer who realises that it is necessary to look below the surface of things to know the truth.

But whilst we can cite scores of instances of women aching for little ones to cherish and protect, there are others, in a great minority, who view their own offspring with a dispassionate affection well-nigh amounting to indifference. Those are the women whose maternity is either dormant or partly blighted for some reason, either physiological, or more often purely psychological. They are now in the minority, though perhaps they will not always remain so, for

women who put every kind of worldly reason before the indulgence of their maternal instinct can scarcely be called true mothers. Doubtless they are the products of our latter-day civilisation, and it is useless to blind ourselves to the alarming fact that from now on, as one generation succeeds another, women must tend to become less inherently mothers, and therefore less sexual in the accepted sense of the word.

We may, with each succeeding generation, have to envisage a highly civilised community, where sexuality with its resultant maternity will have become almost extinct, except among the least educated portion of the community. Girls and boys, brought up and educated together, will tend to regard each other more and more as brothers and sisters—comrades, companions, anything except lovers. Marriage, as a sacred and eminently satisfactory institution, will continue to exist and to flourish till the world's end, but it will be the marriage of soul and mind rather than that of body. The more this condition of sexless union increases the sooner will the end of the world in which it prevails be in sight. Is it too much to suggest that it may well be the ultimate, if gradual, merging of the sexes, produced by the process of evolution, with the extinction of the sexual urge of reproduction, that will in due course bring about a natural and gradual extinction of all the races of this world as we know it? The only alternative to such a finale would be the prolongation of life, by the means

of scientific discovery, to such an undreamed of length of days as would reach out to the realms of corporeal immortality. And all this may come about within a space of time which is easily conceivable. It will not depend on the white peoples—the future of the prolongation of the world lies at present with races other than ours.

Take India. Birth-control has not touched the fringe of her population as yet, although there are signs of intense and almost passionate interest in the subject among the more educated; but it is unthinkable that the women of India will continue to submit, or to be submitted, to the martyrdom of child-marriage and child-motherhood once enlightenment with its accompanying emancipation of womanhood succeeds in permeating the fabric of Hindu civilisation. For, as things are to-day, the preparation of the child-wife for maternity from earliest infancy spells malady and martyrdom. The Indian girl-children, as also in a lesser degree those of the yellow races of the world, are openly and elaborately prepared for motherhood from the time of their birth. They start life with their sex-functions kept constantly before their eyes and exhibited as the one banner which will lead them to salvation! From the first moment of their conscious thought their maternal potentialities are exhibited as the one factor on which to base their actual existence, the one reason for their presence on earth, the only excuse for their

being. To our Western outlook it is both horrible and indecent that the first period of every girl-child is looked for, counted on, talked of from the moment she leaves infancy behind her, yet the plain truth is that from babyhood she leaps straight into maidenhood, and with the shortest shrift possible into wife and motherhood! She has no childhood, no girlhood—she is swaddled, tied down, wound about with her sex-possibilities all through life, until at an age when Europeans are still young, or in their prime, she suddenly becomes an old woman, a hag to be kept and honourably suffered as the mother of sons, or else thrown on the scrap-heap, along with the widows left sterile, or who have failed to rear male offspring.

Before me is a bundle of long letters, written to me by some enlightened and thoughtful Hindu parents. More heartrending epistles than these it would be hard to find. Here is one :

“ I beg to introduce myself to you as an Hindu subject of the British Empire. I am an old man, about 60 years of age. I am a Brahmin by caste (i.e., vegetarian). The matter of this letter will surprise you, but I hope you will be so good as not to treat it as impertinent.

“ Brahmin girls are married early, always before puberty, with the result that soon puberty is established, which is ordinarily between 11 and 12 years of age. Thus they are forced into married life and beget

children long before the development of the body has fitted them for maternity.

“ My daughter, now aged 29 years, is one of the thousands of victims of this rigour of the caste. She is the mother of six children, of whom five are girls and only one a boy. The eldest, a girl of 13, has attained puberty and is now to pass into her husband’s house. My race is being undermined like this. We are so placed that to find a husband for a girl we have to pay dowries and incur heavy expenses. The dowry is £100, which is a large sum for most of us.

“ My daughter and son-in-law are not well off. They can’t go on paying dowries like this at the marriage of every girl. They will soon be completely ruined and will be deprived of the few ancestral acres and their house. Do send me your recipe for my poor daughter. I am an old man and you may confide in me. For unless your good offices are invoked for my daughter she will continue bringing forth many more girls, which is a constant source of anxiety to all of us concerned.”

What actually happens is that before having a live girl there are frequent *male* miscarriages, or female children still-born, that are not counted ! Just lately a Hindu lady wrote to me saying she had *three* daughters. In time I found out that in reality she had had *seven* girls and many male mishaps. The three daughters only survived. The unspeakably brutal treatment of women in child-birth, the

neglect to the point of starvation of superfluous girls, is quite sufficient to account for this deplorable state of affairs. The painful truth is that the religious rites and social habits of the Hindu are to Western minds filthy and depraved. To be an enlightened and loving father, and to realise just what awaits a beloved daughter, must be worse than a living purgatory. Small wonder that the Ganges still claims a fair proportion of unwanted babes, whilst in China, where, allied to a backward and stunted civilisation, a more cold-blooded code persists, the parents prefer to leave their superfluous girl-infants to perish in desolate spots, if not rescued by strangers.

Among the savage tribes of Africa the first menstruation is hailed with jubilation and great festivities. From then on the daughter is regarded as marriageable, as having asserted her right to wifedom. She has proved the existence of her maternal powers. Probably she will be little more than nine or ten years of age, but henceforth her one object in life will be to bear, and produce. If she be sterile, then, beyond a life of slavery or servitude to the more fortunate of her sex, she will have failed to accomplish the object of her existence.

Among the aboriginal tribes of Australia a woman who had not had many lovers and given proof of maternity was thought little of, and far less sought in marriage than her more free-and-easy sisters. In Madagascar a fashionable bride insists on being

married in white, whilst her illegitimate children act as little bridesmaids and pages to carry her train trimmed about with orange-blossom.

In 1907 the law of Denmark made it legal for the young women of Iceland to have illegitimate children without loss of reputation, but they were restricted to six children each. And nearer home it is said that in certain Northern counties it used to be considered unthrifty to marry a woman who had not given evidence of fertility. In a different sphere and for dynastic reasons different methods prevailed with the same object. It was notorious in Germany that the choice of the late Kaiserin was welcomed above all for the belief that, as a wife, she was " bound to produce fine sons " for the monarchy, and certainly she succeeded in fulfilling her destiny to perfection in that she faithfully presented to the All-Highest six sons and one daughter.

Whether birth-control is now changing or will completely alter present ideas concerning wifehood remains to be seen. But supposing large families no longer to be desired, small ones, containing at least one son, will be required so long as the East remains true to its Oriental outlook; though it is only fair to admit that the state of upheaval and change is so phenomenal all the world over, and continues so increasingly to modify the face of old-world customs, ideas and traditions, that no one can safely say what future lies in store for even the oldest and most

reactionary of countries ! To say that such and such a tribe, a race, or empire remains changeless and stationary is fallacious and stupid and almost meaningless ; for no land can indefinitely stagnate in a world seething with progress.

With women it must be the same. Once they awoken to true civilisation they will assert themselves independently of their sex, just as the women of the Anglo-Saxon race have succeeded in doing, within the last few generations ; and, in view of what has been achieved in England within the past forty years, it is quite reasonable for us to suppose that another fifty or hundred years may see an unparalleled awakening of womanhood all the world over, with a corresponding advance of their cause, and an appreciable emancipation from the hereditary bondage of their sex.

That the Anglo-Saxon race is a generation or two ahead of the rest of the world in the removal of sex-disparities is generally recognised and is likely to remain the case. Britain has always been a pioneer in every big forward movement, a circumstance due largely to her freedom of outlook, affording the widest mental range ; to her religion, constantly protesting against stagnation and reactionary superstition ; to her politics, the least corrupt and the most open-minded in the world—the most liberal in outlook, the most progressively conservative in courage, orderliness, and the tradition of discipline. But

more than to anything else she owes her progress to the individual independence she has fostered in her children, and the positive position she has allowed her women to take for themselves. The granting of the suffrage to women achieved their final emancipation. For the first time they won a place in the sun, on an equality with man, independent of their sex and its disabilities or potentialities. In every country where women's rights have been recognised the same betterment exists.

It is only the natural consequence of such far-reaching developments that, in the preparation for motherhood, an intelligent plan has replaced a foolish one, ignorant methods have given way to enlightenment—barbarism to civilisation. Above all, this preparation is controlled, kept within bounds, and subjected to a general discreet sense of its proper values. It is embraced by those only who are consciously willing, and deliberately desirous of fulfilling such a rôle as that of motherhood. And with a lessening of the sexual urge in women, there will be a corresponding moderation in their menfolk.

“ It is an ill wind that blows no one any good,” and probably, did we but know it, the great preponderance of women in the British Isles has proved a very real blessing in disguise ; very much disguised possibly, but nevertheless of potent assistance in directing by sheer force and weight of numbers public opinion towards the goal that women were

striving to attain, and the mere fact of there being this dearth of males in England has put women on her feet in the world of economics and has forced her to make good.

Doubtless the war deprived Great Britain of 700,000 of her men, but it must not be forgotten that although there were actually less marriageable women than men in 1911, there was in England, Scotland and Wales a surplus of women of all ages amounting to the stupendous figure of 1,325,863. It is true that for every 20 female infants there are 21 males born, but up to within the last 20 years boy-babies have died in a much larger ratio as compared with their infant sisters; and, although a much larger percentage of boys are now saved, thanks to the existence of Child-Welfare Centres in every town and village of Great Britain—the expectation of life for a child born in England to-day being certainly 17 years longer than it was for a child born 50 years ago—there exists still a slightly larger mortality among boys up to the age of five. After that age the male surplus is no further diminished by death until after the age of forty. Except after a great war, up to that age there are more males than females; therefore up to that age there should be a mate for every woman. Doubtless there would be were it not for the Colonies of the Empire, and for the one-sided and one-sexed emigration to distant parts of the world of thousands of young Britons—all

potential husbands and fathers. That there are more old women than men does not alter the position ; they are serviceable and more useful than old men, in that they are less selfish and on the whole adapt themselves to fit any household rather than try to adapt the household to fit themselves. Also they no longer require a mate, whilst men are apt to cherish the thought of such a need from adolescence to the tomb.

But the fact that there is a surplus in the twenties and thirties is, and will be from now on, an entirely needless one, and a cruel piece of folly. All means should be taken to encourage emigration, not only of the men and boys, but of a corresponding number of women and girls. There are hundreds of thousands of men who should to-day be marrying our young women, but are remaining permanently in Canada, the United States, Australia, and other of our distant dominions and settlements. And in a country of constantly emigrating manhood, without the corresponding proportion of women, the dearth of a proper mate for each of our women will continue until we are able to produce 110 males to every 100 females, instead of 104 to 106 as at present. To this I shall refer later when dealing with the effects of pre-determination as known and practised among the more educated of our population. At the same time it is only fair to admit for our immediate comfort that with every succeeding year the disparity between

the sexes in infant mortality will tend to grow less as the special care needed by boy-infants is recognised and increasingly supplied.

Perhaps the intrinsic genius of the Anglo-Saxon sex-potentiality lies in its capacity for remaining latent until actually brought into activity, and in the use of such hidden forces directed into other useful channels until it is required to operate in its own. Such a genius is a gift of the gods, and it is ours more than that of any other race in the world.

And precisely because of that masterly self-control which is becoming more generally acquired with each new generation, so should the race, provided only that indiscriminate and artificial birth-control methods be kept within bounds, continue to improve in quality in proportion to the strides made by women in their preparation for motherhood.

But whilst we may hope, thanks to an age of unparalleled enlightenment, to achieve the highest eugenic results, let us beware of the many snares and pitfalls that abound in the path of maternity and are only too apt to beset mothers who sacrifice too much to the craze for "modernity" and its methods.

II

THE LOST OPPORTUNITY

None but a madman looks for children when it is too late.—
MARCUS AURELIUS

IT is scarcely realised how great and how rapidly increasing is the number of what may be termed platonic or “sexless” marriages in England to-day. It is impossible to hazard a conjecture of the percentage of such unions, but of every hundred couples of the upper and middle classes, there are certainly two or three who are content to live in perfect unison of thought and outlook, whilst shunning or ignoring the very instinct from which all forms of marriage originated.

The reason for such abstention is seldom the one advanced by the wife or believed by the husband. They may speak haltingly of health none too flourishing, of plans slightly unsettled, of finances scarcely prosperous; but at bottom one feels—and possibly they know—that the one thing needful, namely, the physical urge towards procreation, is either missing, or, if not totally absent, too feeble to enforce its demands.

There may, as the years roll by, spring up a certain ambition to possess a son to carry on the family name, or the paternal business ; perhaps even a faint desire for a daughter to cheer them in their old age. But among those couples who subscribe to the “*mariage blanc*” as the French term it, there are, as a rule, few departures from the original plan of platonic conjugality.

I can call to mind quite a few of these æsthetic couples, and I have been interested in the wives—serene, calmly contented wives—each mothering her husband and full of his interests, just as—I like to imagine—he is equally enthusiastic over hers.

Within the past few years, however, a few of these wives have come to see me, who had faint qualms as to their future with its undisturbed childlessness.

One of them is a writer, the author of artistic books on gardening, landscape, the beauties of rural England and other soul-lifting topics. The husband writes also. Together they have always fed on their aspirations, their ideals, striving towards a higher sphere of intellectuality, in a perfect unison of heart and spirit. But she comes to consult me, thus proving that there is some urgent trouble, for this alone is what usually brings women to ask my advice. It seems that her husband has taken of late to writing sonnets about Love, about subjects betokening some belated awakening of instincts that she had never

properly understood, and which she had fondly imagined were equally non-existent in her partner.

So she asks me, is it too late, even now ? Is there perhaps the possibility of a child—some day—even though both are well over forty. I look at her, and note the hair, severely brushed back from the high forehead, that shows greying streaks, whilst in her eyes the patient indifference to all those instincts ordinarily evoked by mere physical nearness to the beloved is clearly indicated. Her femininity has been buried beneath a solid stratum of anti-sexuality. Can it possibly be dug out ? And seeing it, will he, the husband, recognise it or want it from her—his intellectual mate—when she offers it to him, such as it may be ? Alas ! over the serenity of that brow I see the foregathering of shadows, in those quiet features, narrowed shoulders and flattened chest, I read the oncoming tragedy.

Those two are now separated . . . their lives have fallen apart. She still writes of the beauties of nature, of hamlets, running streamlets, hillsides and alleys deep ; whilst the husband has published a novel where the dominant note is the love of the senses—the love of the primitive man for his natural mate.

Then again, there is another kind of couple, who for different and obvious reasons sought to deviate from their original plan.

As usual it was the wife who came to ask advice—

a pretty, delicate-looking girl—twice married—and so far, in its accepted term, never a wife, except in name! At 18 she had married a young officer of 22. Her husband adored her and they spent one blissful month together. But it was during the Great War, and he feared to leave her widowed with a child; so calmly and quite naturally they abstained; neither ever dreamt of artificial abominations. To neither, apparently, was it any great effort, and they lived sublimely . . . till he was obliged to return to France—to leave her for ever, for he was killed in action! For five years she mourned him sincerely, till again she was wooed and won, this time by a young man, healthy and affectionate, but poor. So mutually they agree to wait indefinitely, and to live together as friends only in the truest sense.

Then comes a stroke of luck, a small fortune is left them, and a baby is thought of to inherit the name and the windfall of the young parents. And so the wife comes to me to enquire as to the best means of producing a child—preferably a boy—who must be in every respect as healthy and perfect a specimen as they could hope for. This time it is not too late, and within the year their wish was gratified and a fine boy was born to them, as they deserved. Whether they have reverted to their platonic relationship or not I do not know, but as a rule parenthood has a way of opening up new vistas of prospects almost

illimitable, for is it not in itself Nature's supreme education of animal and man alike ?

It must be admitted, however, that Nature is not always on the side of such couples ; frequently it is the haphazard on whom she would seem to lavish her gifts most freely. It may be that too much planning, where she is concerned, is apt to defeat its own ends. Thus a mother may settle on a day to " start " a child ; every condition would seem to be fulfilled and all prospect of success practically assured, and yet no pregnancy ensues. The egg-cell has not been fertilised.

The following month again nothing happens, for the probable reason that a blank month has been struck—the alternate month of entire fruitlessness for every normal and healthy woman. But what of the third month, fruitful again—apparently the absolute replica of the first that was used and tried ? The conditions seem identical, the condition of health of body, mind and spirit equally as good—or as indifferent—as on the two previous occasions. Yet this time fertilisation actually occurs, and within a few days, or weeks, all doubt is removed as to the existing condition of pregnancy.

There is certainly something incorrect from a moral point of view, something inharmonious with nature, in the wife, who for no serious or definite reason sets out from the first days of her married life to avoid having a family ; or who, cold-bloodedly arranges for

a certain month or date for a potential child to be born—to fall in with her own petty schemes or elaborately laid plans—plans all too often made to be undone. In a proposition of such magnitude as the birth of a child, one feels that it is almost tempting Providence to map out the exact time when its coming will cause a minimum of social or financial inconvenience ; whereas the one thing that really matters is that it be born viable and healthy, and that its advent may occur without endangering its mother's life and well-being.

Too often I come across instances of such arrangements being brought to naught by miscarriage or the premature birth of a still-born infant. And what strikes me most in such cases is not so much any deep sorrow at the loss of the babe, as the positive annoyance on the part of the mother at the non-fulfilment of her “ plans.” Whilst there can be no doubt about the growing demand for knowledge as to the most propitious days and times for the conception of a child of either sex—a boy in preference to a girl, or vice versa—one feels that room should be allowed for Nature to work out her own schemes for mother and child in particular and the population in general.

Doubtless we have travelled far since the days when the adage “ the Lord will provide ” was supposed to solace the child-ridden wife of the past century. But there is such a thing as “ travelling further and faring worse ” by ignoring the sound common sense of some

of our grandmothers' sayings ; and I am old-fashioned enough to realise that only too frequently the best arranged births regarding mundane circumstances have turned out the most disastrously ; whilst the baby that is offered a warm welcome in the face of every material disadvantage is apt, in the long run, to bring good to its parents, and to live to be a blessing to the world in general. Where a signal lack of welcome is most frequent, and under the circumstances, scarcely to be wondered at, is in the case of the girl-mother. Here is an instance of a young woman finding herself doomed to choose between the horrors of abortion and the trial of a pregnancy, which, were it ever known, would cause her downfall and social ruin. It is all to her honour that she chooses the latter ! Heroically she went through the wearisome months of waiting with a courage amounting to stoicism. But for the coming infant, all unwanted, she nursed a hatred almost deadly in its intensity. " I hate it ! I loathe it ! " she would say. " If only I could miscarry ! If only it would die at birth ! " or " I think I shall kill it when it arrives ! " But I knew better, and lo and behold, when it did come, was there ever more tenderness displayed to any blue-eyed babe laid in its mother's arms. How it was nursed and bathed, and dressed out, and adored by that young mother—with a passion of love far exceeding the detestation she had felt up to the very moment of birth.

The tragedy was that those months of pre-natal antipathy had accomplished their deadly work. The tight stay, the lack of care and forethought for the well-being of her burden, in due course proved only too fatal. The infant was one of those born too pretty to be really healthy, pretty with that delicacy of feature and colouring that so often foreshadows an early death.

The little mite lived four months, just long enough to twine herself round the mother's heart. Then she caught a chill, there was a touch of pleurisy, and in three days she was lying stiff and stark. Never was a child more tenderly and truly mourned.

And the sequel ? A fairly common one. The girl-mother is now happily and safely married, but no baby has come along to replace the first—the unwanted one she loved and lost. . . . And the years are going by all too swiftly.

Similarly, regarding the “ wrong ” sex of an infant, many distressing cases have come to my notice. One is that of a young and very devoted couple, married close on ten years without any sign of offspring, when they found to their surprise that at last they might expect a child. For the first few days the wife is pleased to know herself no longer sterile. But, as the novelty of the idea wears off, and the qualms of nausea begin to disturb her equanimity, she turns over in her mind the question of sex. From her dates—the only possible ones—she realises that it must be

a female child that she is carrying. Thereupon she begins to fret that after all these years her first child should not be a son and heir. She becomes restless and unhappy, her appetite fails, and each morning, after an unrefreshing sleep, she wakes feeling tired and bored with things in general. Her temper suffers accordingly, and the husband, more patient than most, becomes correspondingly depressed. After the quickening there is an automatic improvement all round, and the wife acquires a degree of resignation, whilst the nearing approach of the event and the appeal of novelty and interest excited in those about her cause a certain amount of appreciative speculation as to the future looks, weight and disposition of the coming babe. The name becomes the subject of grave discussion ; there is the cradle to drape, the pram to choose and order, the “ nannie ” to seek and engage.

Belated happiness, if somewhat pale and anæmic, knocks at the door, and none too grudgingly is admitted. . . . And then comes the tragedy, which in my view is wholly merited. The baby, a lovely girl—all pink and white, and beautiful enough to gladden the heart of any mother, a daughter who instinctively appeals to a young father’s instincts as few sons ever do—is born, and lives a week or two, and then suddenly she dies ; and though later on a boy is born, no other daughter ever came to those parents. That case is typical, or worse still, after

that first infant, there may never be another of either sex . . . and throughout the long years of ensuing childlessness, how often must the heart of each parent crave for the presence of that precious lost daughter.

Such examples may flavour of moralising on the effect of getting our deserts in this world. But among sterile women there are many who have only to blame their own inept stupidity in not having children in due time and season. There are thousands of such persons who "wait" till they are well past thirty, or forty even, before thinking of starting a family; and for no earthly reason except that they "might be going to India, to China, to Africa," or elsewhere, or they "might be changing houses," or "their husband was not keen on having a child at once," or again that they had so much "entertaining," "hunting," or "dancing." Rarely "too much work"—for my experience goes to show that the workers, being more intelligent than the workless, have usually the foresight to realise that the *first thing to do in married life*, especially when no longer very young, *is to have a child*, no matter what the mundane circumstances may be, or *the chance may never come again*.

Instances—I could cite dozens. Here is one : A woman aged 47 needs a son and heir for a great family—an old and honoured title that her husband unexpectedly inherited. She had one girl by a

former marriage, and when she married the second time at about forty she became pregnant almost at once. It was a "frightful" nuisance, she said, as she simply had to hunt and "do things." So there was, of course, the usual thing, an early mishap.

She did not mind then, because at that time a baby would have been most inconvenient, and she felt sure that having "always started so easily before," so she would again when she was ready, in her own time, and prepared to settle down quietly. Her "own time" arrived, and she settled down ever so quietly, but the baby never came—not even a sign of one. And as the years rolled by, she became desperate, and every treatment was tried until the doctors she visited merely smiled and shook their heads, for the "change" had already set in. When I last saw her I realised that she had never made a proper recovery from the ill-fated miscarriage, and as her courses had practically ceased I could hold out no hopes of a possible heir.

Amongst sufferers from sterility a potent cause is the quinine pessary, and its kindred horrors. After a few years—I make bold to say even months—of their use the tissues of the womb are as effectually damaged as the little egg-cells which the pessary was meant to obliterate. It is difficult to burn down part of your house without destroying the whole; and what is not realised by the advocates of such destructive processes is that the texture of a healthful

germ is as different from pathogenic bacilli as a flower from a weed. It takes a strong poison to shrivel and destroy the weeds growing in your garden-path, whilst it takes but the slightest frost to blight the most promising peach-blossom. There is nothing more tender and fragile than the microscopical baby seedlings within the mother womb or fallopian tube, as it lies awaiting fertilisation. And yet many women make use of preventives with the fond idea that they can "start an infant" whenever the fancy takes them. But when it does they are greatly surprised to find that the matter lies no longer in their hands, and that motherhood, as a natural sequence to happy wifehood, may no longer be awarded them.

There are any number of women who, because they have had two or three babies in rapid succession, get away with the idea that they will always be able to have a child whenever they choose. "Oh! I can always have a baby at once" is a phrase continually heard issuing from the lips of smart young wives. But they do not—they can't—after the "first round" of conjugal life! They may possibly be able to conceive easily, but to *carry* a child full time is quite another matter, and after a miscarriage or two they may realise that their lack of common sense, together with the over-confidence acquired by the easy success of their first pregnancies, has helped to head them straight to disaster.

When a woman is very young her muscles are usually taut and strong. If she can run and leap, and play a strong game of tennis, she will be more or less immune to miscarriage, and be able to do far more than an older woman, who has less time or energy for games or other muscular development. Thus it is that one hears the mother of thirty or so talking freely of all she did when pregnant with her first babies, how she danced, hunted, climbed mountains! But she won't do it again—certainly not with impunity! For if she attempt such pranks, there will be a string of mishaps or early abortions.

It is thus that we get these thousands of mothers who have all had their chance, had babies, and miscarriages, and now, instead of the merry children they wished for, have but one living child left, possibly two, or worse still, no child at all to show for all their efforts and maternal output. The cemeteries are full of the little graves of infants still-born, or prematures who have lived just long enough to waken a mother's belated sense of responsibility and love—and nearly all those infants are the victims of an inept foolhardiness and an utter lack of that understanding of the laws governing maternity which is indispensable to every woman before embarking on the great and wonderful journey to motherhood.

III

COMMON CAUSES OF CHILDLESSNESS

I am of opinion that we as a profession are not broadminded enough to adapt ourselves to new ideas from the outside. The best accounts of various complaints are given by lay-sufferers, whilst we are yet in the dark as to the innate and its causes.—W. M. BORCHARDS, M.D.

WHEN a girl-child is born to a Frenchwoman she says: “Now I must start getting together the dowry,” and from that first hour she lays her plans, and schemes to collect and harbour every copper she can spare towards that laudable end.

More praiseworthy still would it be were mothers to start harbouring and safeguarding the future health and well-being of their little girls’ internal organs from the very start; for that they need protection and care from birth is only too evident when one bears in mind that the newly-born girl, as has been indicated, is already a mother in embryo.

A striking proof of the completeness of this previous development lies in the number of instances of girl infants who menstruate from birth.

Personally I have come across three such cases, and have heard and read of others. It has been

contended that this flow is not actually from the uterus, and that therefore it does not necessitate an ovulation ; but a similar suggestion put forward with regard to the course taking place during pregnancy or during lactation has been decisively refuted. Since, according to all authorities, it is unlikely that menstruation, no matter how slight, is ever produced without an ovulation either to herald or provoke its issue, so is it probably the same condition which obtains in the peculiar instance of what appears to be an infant ovarian activity. As may be expected, this effort at an extremely premature puberty usually fails within a few months, the infant ovaries gradually ceasing to function until some ten or twelve years later, and so far as I can gather these babies grow up normally into healthy young women, provided all care is taken from their earliest days.

Such abnormal occurrences cannot fail to stress the importance of safeguarding the generative organs of the girl-infant from chill and the dire consequences of intestinal disturbances and inflammatory troubles.

How often does one hear the remark, which was formerly almost platitudinous, " Oh ! It's easy enough to rear girls, it's the boys that are so difficult to bring up." And there is a definite measure of truth in the belief that infant girls are easier to rear than boys, but no longer is it a crude statement ; there is an underlying question. Immense progress has been made in the national health as a whole, the

death-rate of infants having, as I have said, been halved with the last 27 years, and it is the male infants who have stood to gain more directly than their baby sisters from the immeasurable benefit wrought by the Welfare Centres and the whole vastly improved system of care and help in maternity.

But it should be borne in mind that where the baby-boys died whilst their sisters lived, too often the latter survived as gravely imperfect specimens of female humanity, since they were totally unfit for marriage and procreation. It was they who went to form that huge total of "superfluous women," a million and a quarter strong, from the early eighties right along until the Great War came, which brought them the emancipation they had so strenuously fought for.

And if it is "an ill wind that blows nobody any good," it was certainly that multitude of female malcontents, of thwarted womanhood, who formed the vanguard of the overwhelming and all-conquering movement for the rights and liberty of women.

To this movement entirely we owe the greatly increased *awareness* of mothers of the necessity for care, warmth, good food, exercise, education, a career and happiness for their girls—as well as their boys, and with this enlightened outlook the improvement is certainly commensurate. One hears very seldom nowadays of hysterical maidens weeping for hours on end for they know not what—as they almost invariably did

in my girlhood ! Weeping, why ? Because they were weak, badly nourished and ridiculously clad in garments which squeezed, hampered and loaded them down with every movement. They were never free to act or think as responsible beings. They were ill and flabby ; their backs ached, and they suffered agonies they dared not speak of. They were sent, or taken, dull, endless walks, forcibly, two by two, whether they were equal to it or not—and on certain days no growing girl is ! But above all—and here we reach the core of the matter—they suffered continual chills and colds, never taken seriously, never complained of, and caught almost invariably on those days when the courses were due or actually occurring. But it was never hinted at, or known, that a huge proportion of those weeping girls were suffering from ovaritis, slight enough to be overlooked in the general misery of continual woes that formed the daily portion.

These girls would wonder dully why they always had a pain in the left groin, or on the right side, which was aggravated by walking and increased by pressure. If they complained they were given a pill or some *salts* ! A further complaint might be conducive to a visit from the doctor, and a tonic would be prescribed with a glass of milk at 11 o'clock for extra nourishment, which was usually gulped down after the medicine, causing acute indigestion. I can see now the number of glasses of medicines, laid out on

a big tray for all the sickly girls. The remedies were of all kinds, of various substance and colour, ranging from a brown tarry liquid to a pale green syrupy concoction. It was with morbid fascination that I watched these medicines being swallowed by my luckless school-mates. Sometimes, if I happened to be the youngest in the class, I was permitted as a treat to hold their noses for them !

As often as not, however, the symptoms were thought to be largely “nervous” and the patient was told that she was suffering from the usual malady of that period, namely, *hysteria*. But the irony of the situation lay in that very word “hysteria,” which comes from the Greek, meaning “affection of the womb.”

There was the bearing down feeling with backache, accompanied by a white or yellowish discharge. Many of the girls, one knew, suffered from that most ordinary complaint. In the very old days it was termed “green-sickness,” and no one worried much about it, so ordinary a weakness it was ! Who ever dreamt that what it really meant was some distinct disease of the womb. Leucorrhœa is the proper term ; amongst girls and women it is known as “whites.”

There is no doubt that the irritation of the vaginal canal, of which “whites” are the indication, is liable to extend by continuity of the tissues, upwards first to the neck of the womb, thence to the living

membrane of the uterine canal itself, and afterwards to the fallopian tubes, and from these by means of the lymphatic vessels to the ovaries. Furthermore, it has been demonstrated that in many cases of ovarian disease chronic inflammation of the living membrane of the womb was the direct cause of the affection of the ovaries. Only too often these serious diseases, which frequently affect the ovaries and necessitate the performance of most formidable operations for their removal, really have their origin in some trifling disorder of the external passages, spreading thence to the internal organs through the channels, as described. And only a woman can imagine or attempt to realise the tortures that a sensitive child undergoes when afflicted with this complaint—it makes unhappy, introspective, little old women of them—and yet it can not only be remedied, but as easily as it is unfortunately often encouraged.

I was asked to advise a young working girl of 16. When she came in to see me she looked drawn and white. In answer to my questions she told me she was “always losing—not blood,” she whispered, “just white discharge.” I looked at her again. Her legs and feet were clad in tawdry artificial silk hose, and a pair of old evening shoes. Outside it was pelting with rain—legs and feet were drenched. “My period is overdue,” she went on, “and when it is late I always get this trouble.” The simple remedy

there involved the finding of some wool hose, a pair of stout shoes, and goloshes to go over them. Then, after being treated to some severe sermonising on the perils of wet feet and damp ankles, she departed. Three months later she came again to thank me. "I have no more of that trouble," she said, "and I'm that fussy about keeping dry that mother laughs at me!" Such mothers are not of the category who laugh last and laugh best; out of seven children this one, I learned, had buried four, one a girl of 13.

Troubles from the same cause take many forms. I am continually coming across cases that offer conclusive evidence of the primary action of the left ovary in the young girl at puberty. Here are two instances. A child of 13 had been very poorly, and both her doctor and parents had good reason to suspect a first on-coming period, when the child caught a chill, causing inflammation of the left ovary. Within a few days peritonitis supervened, and the child died. The trouble was entirely on the left side.

A young girl, who had for years complained of pains in the left side, was found to have a huge growth in the womb. So deeply embedded was the cyst that during the operation the left side of the uterus had to be removed also. The origin of the trouble was traced to a severe chill and inflammatory disorder in the left ovary during the child's first period at the age of 12. Later on she married, and

is a fairly healthy and happy woman, though the certain knowledge that the joys of motherhood will never be hers is a cruel affliction, and reflects severely on the lack of maternal care she received as a child.

There are numbers of girls going about with their wombs displaced—either downwards, backwards or forwards. This invariably indicates an unhealthy condition of the tissue of the womb. Its structure has become softened, and thus loses its power of sustaining itself in its normal position. Such displacements may be the result of a severe fall, but in the great generality of cases the causes are simple and avoidable. There has been some over-exertion at period times, for what one can do with impunity between the periods, no one can do, without incurring grave risks, during the period. In certain cases absolute rest in bed for the first few days of the actual flow is necessary. Young school-girls should be encouraged to rest at those times, and all long walks should be entirely optional. How many women have told me that they will remember to their dying day the utter misery and agony of those long daily walks, when they felt “as if their inside was dropping out of them.” To women this saying is a most ordinary one—one hears it perpetually, and among shop-girls it is an accepted and a usual sensation. In a few big shops the rule still prevails that no assistant may sit down, except for meals. I know of no more

refined cruelty. To most women it is bound to spell disease, and for many it spells an early death.

A shop-girl, during sale time, will say to another : “ I do feel bad to-day. I’m not the thing—and my inside feels awful . . . I don’t know how I keep about ! ” And this goes on month in, month out, until they marry, and then with the arrival, or more often the non-arrival, of a family, it is discovered there is some serious uterine ailment, or severe ovarian disease, which might have been altogether prevented, which was entirely unnecessary, had the most ordinary commonsense care been exercised or *permitted* during the period times of her girlhood. It seems a rather bold thing to say, but uterine complaints are almost always, more or less, mixed up with a woman’s illness ; hence the womb has always to be considered in all disorders appertaining both to girlhood and to womanhood.

I know cases of children of 13 and 14 who were actually allowed to sea-bathe during their periods, if these happened to be scant ; the results have been positively tragic—in two instances they proved fatal. There are others who choose that time to sit in a hot bath every evening ! Others—and they are legion—believe in “ walking off their pains and aches ” !

I knew one girl in particular—a clever, energetic young teacher of 18, highly educated and gifted in many ways. She was motherless, and had been brought up in a school where games were one of the

important items of the curriculum. Whilst with me, her one idea was to go long walks and excursions whenever she could manage it, each day that her period lasted. She would take no warning. She is now in a lunatic asylum.

What we have to remember is that the womb not only possesses a liberal blood-supply, but it is lavishly supplied with nerves also, so that it stands to reason that it cannot be involved in any disease without its nerves suffering coincidentally. As a consequence of this nervous irritation the patient soon becomes the victim of moroseness, melancholia and sleeplessness, the very symptoms which lead direct to insanity.

All may not be affected similarly, but to those who escape nervous troubles come others, such as constipation, indigestion, languor, and wasting of the body. But to each and all afflicted by womb trouble, no matter how slight, there exists a certain lack of mental poise—one of the plainest symptoms of that womb-disease termed “hysteria.”

When one reviews the immense improvement wrought latterly in the lot of women in general, along with the emancipation from the prudery of the past, it is highly satisfactory to compare the liberty and opportunities accorded to England's girlhood of to-day with the conditions of a generation or two ago. But there is still room for improvement, for with the swing of the pendulum we are up against the exaggerated forms of sport and violent exercise which are far

too freely advocated for girls in their teens, without, at the same time, warning them against the dangers attendant on such muscular efforts *during the period*.

It is all very well to talk of ballet dancers and women acrobats who never desist from their ordinary activities. That may be true, but it is not the whole story. The rest of it is that as a class such women seldom live to be old, and rarely do they give birth to a living child.

There are, however, some exceptions. When living abroad I came across a great ballet dancer. She and her husband performed three times a week at the Opera House in Geneva. Her performance of a living wheel round and round the stage was quite unique, the output of strength and velocity on her part being simply prodigious. In appearance she was broad and plump and extremely healthy. One day I had the opportunity of chatting with her, and she showed me her three children, two big boys and an attractive little girl.

“ But how did you manage it ? ” I asked.

She smiled wisely.

“ We are not all fools in our profession,” she said, “ all my life I was careful in safeguarding my health. Before each of these babies arrived I took a prolonged holiday, and even now, every few weeks, I claim three days of perfect rest, and if I am ‘ off colour ’ I systematically abstain from performance.”

So much for purely muscular exercise. A not less

interesting statement (for which, however, I cannot take full responsibility) relates to the effect of menstruation on the voice. I was assured by a German *prima donna* that in the big opera houses of Europe, it was, or is, a term of the contract with the principal woman singers that they should refrain from singing during the first three days of the courses, so noticeably deleterious was the effect of menstruation on the vocal chords.

There are still parents, and there used to be school authorities, who, however, must be very nearly extinct now, who wilfully refused to allow any difference to be made by growing girls at these times. Such people should be regarded as tyrants totally unfit for their responsibilities. There are too many wrecks of womanhood who drift my way, each having the same tale to tell—one of lack of warning, and, above all, of want of sympathy shown when their state of health, with its accompanying pains and weakness, was mentioned or admitted, and a remedy craved.

I wish to stress the point that the disorders derived from negligence are countless, and since nearly all sterility is due to ovarian trouble, all care should be taken in the first instance to prevent those primary troubles, amenable to the simplest of treatments.

At the same time there are numbers of women going about, seemingly well and happy, eating and sleeping well, who have no pains or aches, beyond

perhaps "an occasional headache." They may also have curious "inter-menstrual pains" (half way between the periods), and they may often feel weary, for no particular reason. But they are sterile—they are abnormal in the sense that they are incapable of conceiving children. Which is a different matter from being able to bear them. They are only *half-women* in that their ovaries are either undeveloped or enlarged, endurated or cystic, inflamed or prolapsed, and the trouble may have started in their infant days, when their tiny endocrine glands were striving to hold their own among the mass of growing cells and tissues—to develop normally in keeping with their surroundings—proportionate and perfect as nature made them in embryo, before the child within its mother's womb had seen the light of day.

Or again, the trouble may have started later, in the halcyon days of foolish maidenhood. The other day in the Underground I was watching a pretty, delicate girl, seated near the window—I only caught her profile, as did also the young and very devoted swain beside her. So obstinately did she turn her face from him that I concluded that I was witnessing a lover's quarrel. Timidly he strove to attract her attention, and the concern on his face evoked my sincerest sympathy, so much so that I was preparing to pour the vials of distant indignation on the head of that young lady, when she turned her face towards me. It was ashen, and in the darkly circled eyes I

saw such speechless agony as almost caused my heart to stand still. And then as I caught her pressing but clenched hand I diagnosed the case in a moment. She was suffering from severe menstrual pains, and the cause was not far to seek. On the streets above, the rain was pouring down on the wet pavements, and the girl's legs were elegantly clad in silken hose, whilst her shoes might well have done for a ball-room. From knee to ankle the damp must have penetrated, whilst the soles of her feet, sodden with wet, caused her to shiver with cold and misery. It was the left ovary that was operating, and on her forehead over the left eye, the girl kept pressing her hand as if the pain there, too, was intolerable. But this was her "day out" with her young man. And all the while the congested condition of the tissue of the left wall of the womb would spread upwards and downwards, and thus it is that sterility is started and created, either of one side or the other—or both—and the pretty and elegant girls of to-day become the sickly and childless women of to-morrow.

Monorrhagia from ovarian irritation may also keep up such a condition of the mucous membrane of the uterus, and unfit it to form healthy decidua ; or, to put it in medical language, " If impregnation has occurred, the ensuing menstrual nixus, too powerful to be controlled by the pregnancy, may be attended by a profuse hæmorrhage, which causes such disturbances in the uterus as are incompatible with the

maintenance of the ovum.”¹ Or again, as Dr. Eddis suggests, the ovum itself, either as the result of constitutional syphilis or other morbid taint, may have so little inherent vitality as to become blighted at an early stage.

Similarly the prevention of fixation of the ovum may result from an unhealthy condition of the lining mucous membrane of the uterus, in that the proper formation of the decidua does not take place; or, again, the ovary may be bound down by adhesions or so covered with false membrane that the ovum cannot penetrate the capsule or find its way into the tube.

There is one disease, than which there is none deadlier, none more fatal to the chances of future maternity, and it is one that claims far too many youthful victims. This is peritonitis. Because it does not of necessity kill, it is no less cruel in its lasting effect on the ovaries—whichever side is attacked by this fell complaint is usually permanently blighted. If the inflammation of the peritoneum has been general, extending to both sides, sterility as a rule is ensured. That there may be exceptions one fondly hopes, but personally I have not met any.

There exists also a highly fashionable complaint of which nowadays one hears far too much, namely, *appendicitis*. Both these diseases being the easiest in the world to avoid, since they are almost invariably

¹ R. Barnes, M.D.; *Midwifery*, p. 346.

the result of carelessness or wrong feeding, is it too much to suggest that when children are permitted to suffer such painful and unnecessary illnesses all blame should be attached to their mother or guardian ?

About a year ago a delicate-looking woman came to see me. She had four little daughters and needed a son and heir. There seemed to be nothing much wrong with her, and after explaining my formula and giving her various other hints, I was about to send her on her way confident in her hopes, when I noticed a peculiarity.

“ By the way,” I said, “ have you had your appendix removed ? ”

She hesitated, then “ Oh, yes ! ” she said, “ but I didn’t trouble to tell you that as I was only three at the time and I have never felt any ill-effects whatsoever.”

“ It was a bad case,” I suggested, “ and you were very ill at the time ? ”

“ Yes, very—I nearly died. But I made a splendid recovery.”

“ Is the doctor who operated on you still alive ? ”

Yes, she thought he was, but he was now an old man.

“ Kindly write to him,” I said, “ and ask him if he removed *all* the right ovary at the same time.”

The young woman looked appalled.

“ Why should he ? Besides at that age one doesn’t have such things, does one ? ”

“Unfortunately, yes,” I replied, “and until I know *what he left you* I dare not give you any false hopes.”

She was upset and annoyed, and still more so when her surgeon sent word, after looking up his record of her case, that he had been obliged to remove the tiny gland as it was so matted together with the septic matter of the appendix as to allow of no healthy egg-bearing tissue being spared.

The poor wife became desperate, and immediately consulted another practitioner, who assured her that she could still have a son, as *the ovaries had nothing to do with sex (sic)*, and persuaded her to try once more. The sequel of course was a fifth daughter, born quite recently. She will not try again.

In another case in which I was interested a practitioner in Toronto assured a pregnant woman whom he was attending that, as likely as not, she would give birth to a son, although she had but one ovary, the left, the right ovary and tube having been removed some years previously owing to syphilitic infection derived from her husband.

In reply to her inquiries I warned her that she could have female issue only, but backed by her doctor, she was incredulous, only to be the more disappointed when in due course the baby girl made her appearance.

It is because I could tell of so many similar instances that I put forward a special plea to all surgeons when engaged on the operation of removing a diseased

appendix. It is that, in spite of the manifold difficulties attending such operations where septic matter abounds, the greatest precaution be taken to preserve the ovary intact *so far as is possible*, or as much of the egg-bearing tissue as is compatible with impunity. That this is extremely difficult when the trouble is widespread I am fully aware, but, with the profoundest patience and skill, and above all the *will to save*, miracles may be performed in the sparing of that precious ovarian tissue. In the past it was not known that on the presence and healthful vitality of the right ovary only depends the very existence of the male species of humanity, and that in removing a woman's ovary, not only is her own future jeopardised, but the future of the race.

One may live quite happily without an appendix or a gall-bladder ; one may exist comfortably whilst short of a kidney or even a lung. But remove one ovary, or both, and you are depriving a young wife of half, or the whole, of her future maternity.

In the old days when my statements were first advanced, there was the derisive chuckle of the sceptic to meet ; but for every unenlightened medical practitioner of to-day, there is now at least one who knows better. Too many such critics have been challenged to prove the contrary of what has been held by the greatest among scientists, beginning with Aristotle ; and, having failed to rebut the truth so expounded, finding no alternative, they

have decided that discretion is the better part of valour.

I take this opportunity to reiterate my emphatic statement that in barely one per cent. of the cases where this ovary has been removed can a woman have offspring of both sexes. If the right side has been drastically tampered with, then will she have girls only ; and where the left ovary and tube has been removed she will bear male children only.

It is only fair, however, to remember that there have been instances, exceedingly rare it is true, where children of both sexes have been born after the removal of *both ovaries*. This may happen, but only where a small amount of ovarian tissue, sufficient possibly to harbour but one mature vesicle or so, is left, just enough for ovulation and conception.

The tale is told of a great gynecologist, who having removed the ovaries from a lady in Glasgow, was summoned to Edinburgh a few years later to perform the same operation. Great was his amazement when he recognised the patient he had operated on previously for the same trouble. This goes to prove that, in a much diseased organ, it is not always easy to discern from the tumourous substance surrounding it any healthy organic tissue left, and in removing the one the other may, by error, be removed also. Or, on the other hand, it may be left well-nigh intact below the mass of septic matter.

That there is substantial proof of the growth of

fresh ovarian tissue is suggested by the statement of Dr. Armand Routh,¹ "that were a small portion of the hilum of one ovary left after its removal, a piece of ovarian stroma, together with the follicle, may in a few months become further developed, and ovulation and menstruation will then be renewed."

Dr. Rumley Dawson gives many cases in "Causation of Sex" to substantiate the suggestion that unremoved portions of ovarian tissue may grow in much the same manner as does a tonsil stump after the removal of a portion of the tonsil.

At the same time it does not do to depend on such remote chances of natural replenishment, and it is lamentable that surgeons should fail to consider that; whereas false teeth may replace those which have been extracted, science has not yet discovered a way of replacing the ovaries removed from the women of the present generation.

One is rather tempted to believe that with the superabundance of birth-control teachings, which are subconsciously influencing and even controlling the medical profession, such a detail as the excision of a woman's generative organs is coming to be regarded as of minor importance from the standpoint of her health as a whole. But were our too hasty surgeons to stop to reflect on the enormity of completely sterilising a young wife and mother, other means, just as helpful if far less drastic, would be resorted to

¹ Trans. Obstet. Soc., 1902, p. 247.

before performing the annihilating operation of hysterectomy. I could cite many a case where a big operation was to have been performed and for some reason or other was postponed, and a perfect cure by natural means has been effected.

Let me give one : A lady came home from India in an alarming state of health. She went to a well-known specialist and he advised immediately a complete removal of the uterus and other generative organs. In despair she asked me for my advice, and I was able to recommend her to a great gynecologist, who would probably cure her without having to use the knife. She went to him, and in six weeks returned to her home completely cured. In that case a harmless drug had been used with a gradual yet most potent effect on the diseased and tumourous state of the internal organs.

Another woman I know came to me, trembling and in tears. She was to go to a Home and have her left ovary removed for an ovarian pregnancy. Doubting the correctness of such a diagnosis I prevailed upon her to obtain a second opinion before proceeding further in the matter. This she did, and after a few days returned to see me, looking already a new creature.

"It's all right," she said, "it's not a pregnancy, merely a small growth which Dr. X. hopes to cure with medicine." This he did and no operation proved necessary.

Contrast with these one of many sad instances where one was unable to be of use—one of those unnecessary tragedies of life which should never occur.

The young wife of a big landowner was most anxious to have a son and heir. She had two little girls, and complained of slight but continuous pain in her right side, which had persisted since she had caught a chill during her period some months previously. She was a nervous little woman, so I arranged for her to be examined and treated by an old friend of mine, a safe and most careful gynecologist. He prescribed, and assured her that in time the trouble would be greatly alleviated. The very next week, however, she met a friend to whom she mentioned her trouble.

"You should go and see my doctor," she exclaimed. "He is a great specialist, and you should let him examine you at once—I'll take you."

Two days later she found herself in a "Home" preparing for an immediate "exploratory operation." "Exploratory" . . . fatal word, suitable when searching the bowels of the earth for the hidden secrets of the Universe. But to explore among the super-delicate organs of a woman for a possible disease that may not exist! Is it not time, when surgery is permitted to go to such lengths for someone in a commanding position in the medical world to arrive and call a halt? It was a year later that I met her quite by chance, and knowing nothing of all this, I

asked her if she had the baby-boy she needed. With tears in her eyes she told me that her right ovary had been removed, and too late she realised that with it there had been removed all hope of her ever having a son. What could I say ? There was no comfort to offer.

Since then she has had one more girl, but she writes that she is still far from strong and that she has never recovered from the shock of that operation—one which I am personally convinced was totally unnecessary.

A well-known medical authority remarked to me : “I am old-fashioned enough to be frankly appalled at the light-hearted manner with which surgery is called in on every possible occasion.”

I am the last person in the world to think that great surgeons are consciously affected by any considerations but the patient's welfare ; but to maintain that unconsciously the great rewards offered for the exercise of their skill are without effect on their judgment is surely to claim for them that as a class they are different from all the rest of mankind, and every one has heard of the surgeon who assured his patient that the only way of saving his life was an expensive operation.

“How much will it cost ? ” asked the doomed man.

“One hundred guineas.”

“But I haven't got a hundred pence.”

“ Well, we’ll see what we can do with pills,” replied the doctor hastily.

The story is no doubt apocryphal ; but the moral is worth remembering.

A well-known West country practitioner once told me that he had never lost a case of appendicitis ; nor had he ever advised an operation. His treatment invariably consisted of homœopathic doses of podophelin, which can be obtained at any drug stores, administered on an empty stomach night and morning. How to *prevent* appendix trouble is largely a matter of wholesome diet, and why the disease has become so widespread is mostly because of the adulterated and devitalised food that we consume. Similarly the majority of cases of peritonitis are the result of gross negligence. It is to enteritis what bronchitis is to a neglected cold in the head ; it is an *aggravation*. Nature sounds the alarm and it is unheeded. A young girl takes a slight chill. She has diarrhœa and pains. She goes out in the cold or gets damp feet. The touch of enteritis becomes peritonitis ; she recovers and becomes partially if not entirely sterile for life. All she had to do to prevent any such disaster was to keep warm and feed on slops. Orange-juice in warm water is the simplest and most rapid cure for any gastric or abdominal trouble. The other, and more old-fashioned diet, is arrow-root or Benger’s Food only, but fruit and milk foods must not be mixed. If peritonitis is the direct result of ovaritis, the greatest

care will have to be taken for many years to prevent any renewed chill of the abdomen, and a body-belt should be worn at all times and warmth and rest ensured during the periods.

Perhaps it is not to be wondered at that surgery should be so constantly resorted to, when one considers that, speaking broadly, a surgeon devotes his whole career to the remedy of the knife, to the practical exclusion of every other. It is partly due, too, to the fact that surgery has made huge and wonderful strides, at a time when the progress of medicine on strict "allopathic" lines has been stagnant. As a Harley Street specialist said lately: "In fifty years medicine, as we know it, will be entirely obsolete!"

Surgery, triumphant, will live; homœopathy will survive, and come into its own. The world is no longer seeking palliatives; it looks for remedies; it no longer wants to treat the effect, but to cure the cause. The day of osteopathy which is breaking in America will have dawned in this country. There will be sunlight cures, daylight cures, diet and fasting cures, every kind of "nature" cures; and we shall see a new world in which suffering will be immensely relieved, disease largely overcome and the limit of life incredibly extended.

And because life itself, in its earliest beginning, lies embedded in those most tender of organs, the ovarian organisation of women, so should the treat-

ment meted out to the ovaries, from the earliest days of infancy to the climateric, be the most gentle, the most carefully moderate, based at all times on the simple principle, which it is so easy to overlook—
“ Prevention is better than cure.”

IV

TREATMENT AND REMEDIES

It is a matter of surprise to me that the great majority of women are so very ignorant of how to recognise the onset of diseases ; and so few are able to recognise those diseases peculiar to their sex in their initial stages, when they are the most amenable to treatment.—Dr. ROBERT BELL

For Life is not to live but to be well.—MARTIAL

THE condition of pregnancy is produced by the concurrence of a multitude of separate conditions; one alone, or even the fulfilment of three or four of such will not suffice to effect the healthy conception of an infant; seven conditions at least—the most important ones—are necessary to ensure fertilisation. They rank as follows :

1. The normal state of both man and wife.
2. The health and proper diet of the wife.
3. The normal condition of the wife's ovaries.
4. The normal condition of her womb.
5. The month chosen for union.
6. The day chosen for union.
7. The position and precaution taken *after union*.

Of course, one has to bear in mind that the cause of barrenness may lie with the husband, and, before

resorting to any drastic treatment of the wife, a practitioner should be consulted, who should satisfy himself that the male partner is not the defaulter, by having the seminal fluid examined. This may be found to contain no spermatozoa, or, if present, they may be dead, mutilated, or very few and feeble. Impotence may be found in young men as well as old, while deformities, injuries, undescended testicles, or diseases such as gonorrhœa, or again, too frequent intercourse or even nervousness may all be direct causes of sterility in the male. But the treatment of such a subject is beyond the scope of this book.

Then again, as regards sterility of the female, it must be remembered that there are many local causes. Among these the most usual are the defective development of the uterus or ovaries, ovarian disease, obesity, vaginismus, polypi, persistent or unyielding hymen, uterine displacements and vaginal discharges, troubles which are nearly all remediable, though some may require surgical treatment.

There is also such a thing as physical incompatibility, where neither partner is to blame, because were either married to another offspring might be likely to occur in both cases. This lack of suitability is a form of dyspareunia. There may be several causes; sometimes a little explanatory talk will clear up many a difficulty, and an exposition of certain material facts will suffice to remove the obstacle to mutual understanding. In very many such cases

wives have spoken to me under the stress of such an intimate problem, and invariably the trouble has been remedied with fruitful results within a year or two.

Another kind of dyspareunia which may require medical or surgical treatment is vaginitis, or inflammation of the mucosa of the vagina. Vaginismus, again, is a spasmodic contraction of the muscles surrounding the vaginal orifice whenever intercourse is attempted—a condition usually to be found in hysterical and neurotic women. On this Dr. Sims remarks: "From personal experience I can confidently assert that I know of no disease capable of producing so much unhappiness to both parties in the marriage contract, and I am happy to state that I know of no serious trouble that can be so easily, safely, and so certainly cured." Other medical authorities state that in each case they have met they have been able to give relief. A simple treatment is to apply a small pad of cotton wool, soaked in witch hazel or Pond's Extract, for half an hour before union takes place, and after removing the pad to lubricate the parts with olive oil. If this does not succeed, medical advice should be obtained.

Not infrequently there is also met with an actual closing, or partial closing, of the vaginal canal by a membranous structure technically called the "hymen." In such cases the passage is always very sensitive. This condition is independent of any disease of the organs, and always disappears after

the birth of the first child. In the meanwhile the use of olive oil is very helpful. Dr. Robert Bell mentions a case of a lady married five years who had never had children owing to a "highly congested and acutely sensitive membranous band stretched across the vagina." This being the seat of all her suffering, with the removal of this membrane the pain it had caused immediately disappeared.

There may also exist some little warty-looking excrescences which appear on the urinary passage and the vagina ; in some instances they are no larger than a pin's head, and yet may cause intense pain when touched. These may require slight surgical attention. But when the tenderness is merely owing to slight lacerations of the mucous membrane, a small pad of Pond's Extract applied each night on retiring to bed and left as long as possible is of the greatest assistance, and may effect a complete cure.

There is another point, a particularly delicate one, and I would not refer to it on any grounds but for its great importance in relation to sterility. It has been my experience that quite half of the women who are unable to conceive are entirely devoid of any ordinary or sufficient degree of sexual feeling or "temperament." So convinced are many people, among the working-classes in particular, that these feelings are necessary for procreation, that when complaining of being sterile, they are careful to add :

“ It can’t be all my fault, for I have ‘ my nature ’ all right ”—a homely way of expressing the physical urge so lacking in two or more of every ten British women. Such a lack indicates a physical numbness of the genital organs, due to some debility of the muscular and nervous tissues, and although cases of conception may occur without ordinary response on the part of the female parent, it must be recorded that the capacity known as the “ orgasm ” is missing in these 50 per cent. of sterile women, where also a condition of “ whites ” or leucorrhœa usually obtains. But there are other cases where this condition is not concurrent with any such weakness—I allude to the physical aspect of the genital organs. To describe such cases I have always used the word “ mute,” in that sexually they are unable to respond, and in trying to discover the exact physical cause of this condition (other than that of disease, weakness, or mere lack of sexual development as above described) I stumbled upon certain facts that, as the result of further inquiry, present, in my opinion, a complete explanation of a hitherto mysterious phenomenon. It is about 25 years ago since a midwife told me of an instance where she was ordered to use a catheter owing to the inability of her patient to pass water after child-birth. Being unable, however, to effect an entrance, the nurse summoned the doctor to her aid. Finally he discovered the urinary passage high up within the

vaginal wall. Since that case I have heard of several cases where this peculiarity existed more or less.

Among the natives of Oriental countries, as to some extent among the Southern Europeans, the seat of all sensation, which is called the clitoris, is placed considerably closer to the vagina than it is in women of British stock. One is forced, therefore, to the simple conclusion that the lack of response, which is far commoner among women of the Anglo-Saxon race than elsewhere, is due almost solely to the anatomical fact above mentioned. Possibly were this point clearly elucidated numbers of women would be relieved of an enormous amount of self-reproach, and it would enable their husbands to grasp the truth of the position. It may be reasonable to suggest that this condition is merely one of the processes of evolution—one more step initiated by our race in the direction of ethical progress—and may be regarded as an effort of nature striving to do her part towards the emancipation of human flesh from that unnecessary or promiscuous laxity which tends to retain mankind on a level below that of the beast.¹

¹ In this connection though it is not strictly relevant to my subject, but so that equality be maintained between the sexes in the ideals of marital as well as single life, I urge strongly on mothers who stand for purity and cleanliness in the British race, to see that their male children are circumcised within the first week or so of their existence. One hears of this matter being treated with cynical and ribald insinuations ; or the ignorant in outlying country districts talking with horror of the "mutilating of babes." But with the utmost conviction, I must insist, though only in passing, that there is no room for two opinions as to the immense moral and physical value of circumcision from every aspect of preventive hygiene.

Among sterile women a great number suffer from malnutrition in one form or another, which I do not find to be the case to anything to the same extent in mothers of families. This is a matter of personal observation, and its importance cannot be exaggerated. Had I not recorded for myself the miracles performed by a proper and nutritive diet on a previously unhealthy and sterile woman, I would scarcely credit them. It is safe to say that practically five out of every ten women unable to conceive are erroneously fed, in that the nutriment required in their daily fare is missing, whilst other articles of diet indulged in have a positively sterilising effect. First and foremost among these latter I place the following :

1. Coffee.
2. Alcohol, cocktails, etc.
3. Vinegar.
4. Beef, and most meat foods.
5. White bread.

On the other hand, the following articles of diet contain the vitamins necessary for the healthful upkeep of the tissues and are conducive to the perfect health of the blood condition, and the endocrine glands, on which depend so entirely the vitality of the ovaries and other generative organs :

1. Barley-water, fruits. Orange-juice and all vegetable-juices obtained from the water in which the latter are boiled or steamed. Lemon-juice, used as a substitute for vinegar.

2. Eggs, fish, brains, sweetbreads, are nutritive and excellent substitutes for red meat, whilst the latter should be taken, and in a small quantity, only once daily.
3. Standard bread and brown bread should replace the use of white bread, which is completely lacking in Vitamin " B."

As regards coffee, taken as *café-au-lait*, we have to admit that it is heavy and apt to clog the digestion, thickens the blood, and in due course turns the skin a dull coffee hue. We all know that as a household dye it is often used to stain old lace and other light-coloured fabrics. But what is more important still, it has a devastating effect on the uterine organs, and it is a positive fact that wherever coffee is taken in great quantities, as amongst the upper and middle classes in France, there is a marked inclination to sterility after the first years of youth.

Again I would say it is not sufficiently realised by women how very closely the kidneys are allied to the womb and the generative *glands*. The beneficial effect of barley-water on the kidneys is well known, and as a help to create, increase, and enrich the milk supply of the nursing mother it is extraordinary. Similarly, when the discharge during menstruation is thick or clotted, which is but a symptom of the state of the blood throughout the system, a quart of barley-water, made with brown sugar and orange-juice, taken throughout the day, will soon alleviate or cure this

unhealthy and frequently painful condition. The fact that gravel is so often present in women suffering from uterine congestion and other such disorders goes to show how easily and vitally one organ may affect the others. But of all the deleterious influences on uterus and kidney, alcohol in every shape and form is the worst ; as for cocktails, one only has to examine the state of the health and nerves of the addicts of such concoctions to realise their effect on the general condition. Vinegar, which is merely bad fermented wine, is so acid that it renders indigestible any food-stuff it is mixed with. Certain people, who suffer from an extra amount of blood acidity, after taking one drop of vinegar are, within an hour or so, afflicted with inflamed lobes of the ear, or with a deposit of white matter in the corner of the eye.

Few people are aware how difficult it is to digest meat if taken later than at the mid-day meal. In my opinion, very few persons can eat meat at all with impunity after the age of 50 or thereabouts. If only everyone would make their lunch their dinner, exchanging the evening dinner for a light supper, we should rarely hear of people suffering from high blood-pressure, apoplexy or paralysis.

Women, after the menopause or change of life, should never be persuaded to touch meat for the evening meal, and very little is required during pregnancy or lactation.

Lastly, I come to the subject of bread, which, as

the Bible says, is the "staff of life," referring of course not to the modern white bread, but to the old-fashioned wholemeal bread, manufactured from the whole wheat, rye or barley, and nothing else. Most of the white bread we eat is made with potatoes, and is doped with that catholic word "improvers." In the South of France improvers are prohibited by law. The commonest "improver" is potassium persulphate, which ultimately forms potassium acid sulphate. It has been established that our daily diet, and especially the ordinary white bread we consume, is gravely deficient in Vitamin B, which is so essential to good health that the first symptoms of such a deficiency are constipation, headaches, indigestion, eczema and pyorrhœa, while there are so many diseases which may be attributed subsequently to constipation and intestinal congestion, such as appendicitis, that they cannot be enumerated. In an interesting letter published in the *Lancet*, Col. Halliday, who had taken notes during 17 years of the cases and causes of appendicitis amongst the coloured troops in India and their white comrades, stated that appendicitis was ten times as common among the white troops as among the coloured. The diet of the latter was bread made from the whole cereal containing the growing embryo; whereas the white troops lived on white bread, which contains none of this embryo and thus no Vitamin B. (He also stated that cancer was rarely found among the Indian troops).

There is more than ample evidence to show that the resistance of the body is greatly reduced by the absence of Vitamin B in the tissues. It is demonstrated also by the more and nearly universal need of children for dental treatment, a need which would never exist were they properly fed on brown or standard bread. It has been found that if tame rats were fed on white bread, they became so weak that they could hardly stand. Directly they were fed on one tablespoonful of Bemax, a preparation designed to represent the nutritive value of a 2 lb. loaf of wholemeal bread, they were cured in 24 hours. But one should eat brown bread within the first day of two of its baking, as it has not the keeping properties that white flour has, and hence must be milled and eaten quickly. I find, however, that the majority of people who do "affect brown bread" keep it till it is so stale that they can scarcely get their teeth into it. Why is it that when one gets brown bread at a party or even at a tea-shop it is usually gritty and unpalatable? The House of Commons ought to be able to do better, but even there its luckless members are served at tea-time with buttered brown bread as uninteresting and stale as old time! One should get brown bread in fresh each day and eat it up within the second day, chewing it thoroughly in order to preserve one's health and teeth and lengthen one's life. Prevention being better than cure, I feel convinced, that were wholemeal or standard bread made *com-*

pulsory for everyone, the race, as a whole, would be immensely benefited. It is the lack of Vitamin B that causes a withering away or paralysis of the muscular tissue of the intestines ; chronic constipation sets in, and all kinds of germs penetrate into the intestinal wall, where they are harboured and grow. There are at least thirty distinct kinds of bacteria in the intestinal canal, and the poisons generated by these microbes are absorbed into the food system and may cause toxæmia or blood-poison, and as an indirect result, in many cases, the vaginal mucous itself may be so excessively acid as to destroy the vitality of the semen.

A woman once came to see me whom I found to be suffering from severe congestion of the left ovary and fibroid on that side of the womb. She was in great pain and the constant discharge from the uterus caused her the most acute discomfort and anxiety. On arriving in my room she sank on to a seat and burst into tears, but after a time she pulled herself together and begged if anything could be done to avoid her undergoing the big and very expensive operation which she had been advised to undergo, but greatly dreaded.

After a few questions I found that her diet, though varied, was of the most undesirable kind, and that her habits were irregular, and she confessed to seven or eight cocktails daily, not to mention other " pick-me-ups " she took to " keep going."

After a severe tussle I obtained her promise to eschew all the above mentioned drinks, and I put her entirely on very light food, with meat but once daily, and for all drinks weak tea twice daily and as much barley-water and orange-juice as she could pleurably imbibe. In a month's time she was so much less "nervy," and so improved in general health and spirits that I was able to arrange for her to be examined by one of the most skilful of London gynecologists. He treated and cured the ovarian and uterine trouble by medical means and, to make a very long story short, she is now a healthy and happy woman without a pain or an ache. If the long-wished-for infant has not yet appeared there is yet time.

Here is another instance of the kind one meets so often. A woman of 42 who had been married three years without a sign of a baby was much worried by the constant presence of a debilitating leucorrhœa. She was always tired and weary, and frequently exceedingly depressed. Inclined to anæmia and chronic constipation, she suffered from indigestion and headache, and severe pains during the first two days of the period. The following were the lines I advised her to follow for some six months :

1. Before rising she had to perform a little auto-massage from right to left in a circular movement for three or four minutes, deep-breathing the while; and still before rising
2. To drink a little cold water.

3. For breakfast weak tea and brown bread and butter (*no* bacon, eggs, toast or coffee).
4. At 11, fruit or barley-water. At 1 o'clock, a good lunch, meat, vegetables, and a sweet and barley-water. No coffee. At 4.30, brown bread and butter and weak tea. At 7.30, a very light meal, with barley-water then or later if preferred.
5. Every day after lunch a good rest or snooze on the sofa. During period time a whole day in bed and a restful three days later.
6. Very light foods and *no meat* during the period, all alcohol, vinegar or white bread prohibited.
7. If the constipation proved very obstinate to start with, a little Virolax or other preparation of liquid paraffin taken at 6.30 in the evening on an empty stomach.

Six months later she became pregnant and a month before I write has given birth to a very healthy boy, whom she is nursing entirely.

Here is another instance of a wife of 37. Her constipation was such that she could not remember when last her bowels had acted without some aperient, usually salts of some kind. This chronic trouble had produced a frequent recurrence of piles of a most painful nature, and the headaches she suffered from were so severe as to incapacitate her during her periods. These were "early" and profuse, and what alarmed her most was the clotted nature of the monthly discharge. Like so many women in this typical kind of condition she went about a good deal and had always answered "Quite well, thank you"

to the daily questionnaire salute of her friends. For it is only when sterility rears its head and looks straight at the wife of a few years standing that she gets to know fear and begins to wonder if something cannot be done to alter her condition.

In this case I urged her to take plenty of good cereal food, brown bread or standard, with a teaspoonful of Bemax in a little milk after her breakfast, a light lunch; orange-juice and barley-water for all drinks—no coffee or alcohol. No smoking, and at period-time I insisted on a day in bed with absolutely *no food* except orange-juice and hot water.

The headaches promptly disappeared. For the piles the remedy called Paso was applied every morning, and hot and cold water used instead of lavatory paper, and at night a small pad soaked in Pond's Extract applied to the rectum. The blood, becoming purer and healthier, the clots ceased to appear, and with a light iodine treatment the ovaries very soon began to function every 28th day instead of at the third week. She is now pregnant and expects a son and heir within two or three months.

In almost every case of trouble and disease one should ever remember that "whilst there is life there is hope," and where one method fails another may succeed. Most of us know the story of the doctor who said to his patient: "I fear I can do nothing more for you. Is there anyone you would like to see?"

“ Yes,” whispered the sick man, “ another doctor.”

There is no doubt that “ what is one man’s meat is another man’s poison,” but it is a striking fact that nearly all women suffering from some kind of toxic disorder show marked aversion to the foods containing the vitamins they so urgently require.

Quite recently a tall, fair woman came to see me, who having had my formula sent to her made use of it over a year before, and had started a son, only to miscarry. There had been some blood-poison, and as a result the foetus had been expelled at four months. She was pregnant again of male issue and was in constant fear of the previous trouble being repeated. Suffering from chronic constipation, she had resorted to various kinds of “ opening medicines.” Her daily diet was of the usual type, white bread and toast, coffee for breakfast and after meals. Plenty of tonics and “ pick-me-ups,” an insufficient lunch and an indigestible meat dinner. Added to that an utter lack of commonsense and nerve-repose. The mysterious “ poison germ ” she spoke of with bated breath could be easily traced to the unsatisfactory condition of the intestinal canal, and the resulting malnutrition had produced an unhealthy blood condition.

Having given her stringent rules as to her future diet, one compounded of fruit, barley-water, eggs, fish and brown bread, I placed her under the care of an eminent gynecologist. Almost while this chapter is

being written I have received news from her husband that she had been safely delivered of a healthy boy, and that both were doing well.

In a previous chapter I have endeavoured to show how vitally important to women and their offspring is the health and vitality of their ovaries. It may sound like an exaggeration to say that all the happiness and health of women may depend on the ovaries, yet it is much more nearly a platitude, though only a small proportion of people realise this all-important fact.

We hear a great deal about ductless glands and how much we owe to the proper working of the adrenal, the pituitary, the thyroid and other glands ; but comparatively little is said about the ovaries—the glands on which womanhood depends vitally for her well-being, and on which hangs the very existence of mankind.

Within the last few years we have learnt quite a lot about Grave's disease, a distressing malady causing the throat to swell, and the eye to bulge from the head in a terrifying manner. It is the most serious form of lack of proper functioning of the thyroid gland. Similarly the symptom of mere "goitre" or "Derbyshire neck" is evidence of the malnutrition of this gland, which depends on an adequate supply of iodine for its well-being. As Dr. Goodfellow, of Chesterfield, says: "The thyroid gland may be regarded as a bank for iodine—the goitre is evidence of impending bankruptcy."

But what about the deeper cause which is frequently the real one? Grave's disease is a woman's disease, for it rarely attacks males, and, like cancer of the breast, it may spring entirely from an unhealthy state of the ovary of the corresponding side, and fifteen years ago a far-seeing practitioner assured me that he could trace almost every case of Grave's disease to some uterine shock, unless it happened to coincide with a constitutional condition of anæmia or phthisis. For instance, a bad confinement, a neglected abortion, or the effects of chill during menstruation, might be productive of such a condition. The truth of this statement is borne out by the following :

“ In thyroid insufficiency,” says one writer, “ lies the secret of the many abortions which are the tragedy of so many women's lives,” and many cases are recorded of repeated abortion—up to six—in which iodine treatment resulted in normal pregnancies with healthy infants at term.”

The fact that iodine given in minute doses has such extraordinarily beneficial influences on the ovaries goes to show the relationship between them and the thyroid gland, whilst the association between thyroid insufficiency and diabetes reminds one again of its relationship to the kidneys.

In 1924 the eminent physiologist Schäfer said: “ The age of a man depends on the quality of his thyroid gland.” Now, since the value of the thyroid secretion depends entirely on its iodine content, and

since the ovaries are very closely connected with the thyroid gland, it would seem that the replacement of any iodine insufficiency would be a direct way of assisting the ovaries to produce vitalised and healthful egg-cells.

As a matter of fact the home of iodine is the sea, and the sea is therefore the main source of iodine. It finds its way into grasses, plants and vegetables, and it is the areas removed from the sea in especially sheltered valleys in mountainous areas which are most liable to be deficient in iodine. Thus English women living in Switzerland are extremely prone to thyroid insufficiency. Within the past few months I have seen three women suffering from the same trouble. One had a child who died from debility two days after birth; the second had three miscarriages for no apparent reason; the third was sterile. I urged each to undergo iodine treatment. Two of these ladies are now pregnant, and the first one mentioned writes that she is now in much better health and hopes also to have a healthy baby in due course.

Where sea air cannot be procured, small doses of iodine should be taken in whatever form is preferred. Iodium 3x in homœopathic form is well-nigh miraculous in its effect on the ovary, and against sterility it has been found invaluable. A popular form of taking iodine is that of iodised chocolates or Butter Scotch, to be obtained at any chemist. One sweet every

five days will prove of the greatest assistance both to adults and children.

There are thousands of children and women who are suffering from thyroid insufficiency. Sir Victor Horsley stated with precision the view that the cause of old age is the degeneration of the thyroid gland. After middle-age its activity diminishes, and since cancer is a disease the incidence of which is greatest in middle-age, I am moved to wonder whether there may not be some connection between cancer and goitre, since it is established that Switzerland, the most goitrous country in Europe, has also the highest cancer incidence !

It should be remembered that all life was originally marine, and among all animals, even entirely land creatures, the salt-craving remains. Some animals, like the porcupine, still make a periodical pilgrimage to the sea to satisfy this salt-craving, or rather, this iodine-craving. It is fairly certain that the reason why, in spite of our sea-mists and smoke-begrimed cities, we are the healthiest country in the world, with by far the lowest death-rate, is mainly because we are a small island surrounded by the sea. And because of the life-giving properties of the sea, when women tell me that they are suffering from ovarian weakness, so often produced by iodine insufficiency, I have always advocated the seaside, with sure and often almost miraculous results.

People nowadays have a mania for rushing off to

Switzerland for the holidays. Little are they aware that they return with depleted glandular sufficiency, and a deficiency of stored energy, which only the sea air of their native land can restore to them. No amount of winter sports can give them just that necessary supply of strength and iodine sufficiency which is to be found on our seashores. But no recovery after a confinement is more completely satisfactory than when a fortnight or three weeks are spent on the sea-coast.

THE CONDITION OF THE WOMB

The simplest and most important of all precautions to be taken against congestion and other troubles of the womb is dry feet and ankles ; and yet how few women stop to consider such a detail. One day a lady doctor came to see me. She told me she was anxious to have a son, having been married some years and still childless. It was a very wet day, and I noticed that she was wearing over-shoes that covered the soles of her feet, whilst her legs—thinly if elegantly hosed—were exposed to the weather. These I touched with my hand : they were quite damp from knee to ankle, and felt ice-cold.

“ Do you have pain at your period ? ” I asked.

“ Yes, I do,” she answered, “ and I am apt to feel chilled and miserable at such times.”

“ Here is a cure for you,” I said ; “ you must go and get it at once.”

On a slip of paper I wrote down the name of a shop nearby where she could procure warm and yet smart-looking gaiters.

“ This is what you require,” I said, “ and wear them whenever it is at all damp or extra cold, especially if you go out during menstruation, and you will keep free from those pains and all congestion caused by chill to the womb just at the time when it is essential to keep it doubly warm and dry.”

Lately a little woman took an excursion ticket all the way from York to consult me as to the best way to have a baby. She was perfectly well except for the fact that she suffered from perpetually cold feet and ankles, and from severe pains during her courses, when she would sit shivering over the fire. Looking at her apparel, I noticed that, as usual, she was warmly clad except for her legs. Her short frock exposed their bareness, covered in thin artificial silk, whilst her shoes were such as one might choose for dancing in—their soles were wet through, and her ankles felt stone-cold to the touch.

“ It’s my one extravagance,” she sighed ; “ in the house I wear woollen stockings, but outdoors I do like to look smart ! ”

“ Well,” I suggested, “ why not wear out your old silk hose underneath the good ones when the weather is cold, you will then have two thicknesses instead of one, and still look very smart ! But for the rainy days there must be goloshes on the feet and

spats on the ankles . . . and then only shall I be able to hold out hopes of a baby within a year or two ! ”

Simple measures indeed ; and yet the whole hygiene of life depends on such trifling precautions.

I remember Lord Kelvin, some thirty years ago, telling me a story about himself. Whilst yachting a friend of his reproached him for being on deck in the biting wind in a thin summer overcoat.

“ Things are not what they seem,” he quoted, “ for in reality I am better clad than you are. You have but one overcoat—thick and heavy, it is true—whilst underneath this coat I have two others, and three thin coverings are always better than one thick one ; for it is a fact that several light interstitial coverings are more protective against cold air than one solitary thickness.”

Many a tumour, many a fibroid, may be traced to a slight chill taken on a day when menstruation has produced temporary debility of the delicate generative organs, and when the blood, coursing more slowly through the veins, leaves the individual with less resistance wherewith to meet the onslaught of wind or shower. It is then that the damage is done.

Here is a case in point. A child of twelve years of age was enjoying the winter sports in the Swiss mountains when she caught a severe chill on the fourth day of her first period. Inflammation of the left

ovary set in with excessive hæmorrhage. Two doctors were called in, but they could not succeed in stemming the flow, and the child became dangerously near the point of exhaustion. Finally, a third practitioner was summoned, who gave the patient a very high dilution of *actæa racemosa*, with the result that the flooding ceased in a few hours ; in a week's time the girl was running about as well as ever. Four years later, however, symptoms of Grave's disease appeared, which proved that the ovarian trouble had affected the thyroid gland, and it was a long time before the trouble yielded to a continuous iodine treatment.

It has been thought that Grave's disease so poisons the ovaries that sterility is a usual concomitant. But quite lately I met a quite young woman in an advanced stage of this disease—so much so that I could hardly bear to look at her—the left eye especially was literally popping out of her head, and her throat was greatly enlarged. She had with her a delicate-looking baby-boy, and a boy of three or four, who had an abnormally shaped head, and evidence of glandular swellings round the neck. In a case like this I should imagine that the left ovary was too toxic to be operative, and that the right one was able to produce ova, but only of unhealthy condition. Her husband seemed to be an entirely normal and fine-looking young man. Probably were that woman properly treated she could yet be cured,

whereas if the condition continues to be neglected an early death cannot fail to be her fate.

THE MONTH CHOSEN

In order that an egg-cell be duly fertilised it is essential to light on the *fruitful* month, the alternate one, the month in which offspring of *both sexes*, in all healthy and normal women, may be conceived ; those starting in the first part of the month being boys, whilst those conceived in the latter part of the month, within eight or nine days of an on-coming period, will be girls. For instance, where a boy-baby is born on January 1 and no menses return during lactation, that first period will be followed by a fruitless four weeks. Supposing the courses to return a few weeks only after the confinement, that period will still be a left-sided one, heralding a fruitless or “ blank ” month.

There is, however, one condition which requires careful observation, and that is where the discharge, or “ lochia,” instead of finishing gradually within the three weeks, appears to have a “ fresh spurt ” or “ return ” on or about the seventeenth, nineteenth, or twenty-first day. Or again, when the mother is nursing, a slight return or “ show ” occurs at the fourth or eighth week. That being an *ovulation*, it must count as a “ period ” also, and it would be the left side operating, followed by the fruitless weeks already described.

On the other hand, if the child born be a girl, the next ovulation or period—no matter when or how slight—would be that of the right (male) side, followed by a *fruitful month* for the fertilisation of both sexes, boy or girl, or twins of both sexes. Now it is that the count must be made, and kept faithfully, from month to month on a little calendar—a cross for the boy period and O for the girl period, so that when trying the likely days, there may not be any disappointment at the “blankness” of the alternating months. For, as I have carefully described in one of my books,¹ it is the normal state of every woman to have one fruitful month followed by one fruitless. Thus, out of every eight or nine weeks, the functions have five weeks’ respite, affording the recuperative advantages demanded by Nature.

When a woman has never conceived, and has no special symptom enabling her to detect which month is actually operating, the simplest way is to try each month on those days nearest to the departing or approaching monthly “flow.” But the great majority of women are able to feel by various signs the side which is active during menstruation. Similarly, ever increasing numbers of medical practitioners are seeking to detect the operating ovary by its increased size, or a certain protuberance of the organ on the right or left side of the groin. Quite recently two ladies have told me at separate times : “ My doctor tells me my

¹ *Nature's Law of Birth Control.*

left ovary is now operating," and sure enough, so marked was the condition above described that I was not surprised at the quickness of their doctor. In fact I am only surprised that this knowledge was not discovered generations ago. And yet there remain a few—though fewer with each succeeding year—medical practitioners who profess to doubt, or attempt to ignore, the alternate workings of the ovary.

There are other signs whereby the months may be recognised. Many women have slight nose-bleedings from the right nostril or the left, according to the side operating ; others a headache, over the right or left eye according to the month. In any case the sign is always there ; it is only we who are too blind to see it. As Sir Arbuthnot Lane said recently : " Nature's laws are terribly obvious, but people don't see the obvious."

THE DAY CHOSEN

Since there is no symptom without a cause, so in Nature may nothing occur without a reason or cause for its occurrence ; therefore it is essential to realise that each day in a woman's lunar month sees its special work achieved in the quick growth or preparation of soil (decidua) within the walls of the womb for the harbouring of a fresh germ. If fertilised this germ-cell becomes a zygote—an embryonic individual, male one month and female the next, entirely complete in its sex and potentialities, and possessing all the latent attributes received from either parent.

The preparation for the reception of this zygote has to be very thorough, and the uterine wall replete with all the adhesive and nutritive properties necessary first to attract and then to hold the elusive ovum.

Already during the period, after the graafian follicle has burst, the male egg-cell is thrown out on or about the third day ; the congested walls of the uterus are being cleansed and made ready for the arrival of the ovum. Its place may be amply prepared by the seventh, eighth, or ninth day, often sooner, but as a general rule the ovum would seem to prefer to hide in safety far up in the fallopian tube or oviduct till the eleventh or even the twelfth day, so that when fertilised it may embed itself in the most suitable part of the uterus, preferably low down on the right side, not far from the cervix, where it digs itself in, wherever the most nutritious vital substance may happen to be available.

If, however, the ovum remain unfertilised, its disappearance is the signal for a commencement of renewed activity within the uterus by an entirely different agency, that of the left ovary setting out to prepare for the advent, within the next few days, of the female ovum, which is thrown out *before*, instead of *after*, the period of that side. During these days in the middle of the month—the “intermenstrual” time, during which no fertilisation can take place—the left side of the uterus, inspired by the activity of the left ovary and the pending arrival of its ovum, is

being prepared to suit the anabolic nature of the female germ-cell or zygote. This, already by the eighth or seventh day before the period, should find a suitable bed, although it may elude fertilisation till the third or last day before the impending "flow," possibly because the state of the uterus was not previously suitable or ready for its arrival. If, on the other hand, it is not fertilised it dies and is carried off in the train of the menstrual flow.

There are women, those in possession of the "freak ovary," in whom the right ovary has been removed, disabled, or is not working as it should, who are unable to conceive before the period. They are the women who are incapable of bearing sons. They conceive girls only, and that usually *after* the left ovary has operated, in what should be the fruitless month. But no woman in a normal state conceives in the fruitless month. The exceptions are greatly in the minority, and are never to be found among those races uncontaminated by the effects of civilisation. In such cases the torpid condition of the right ovary, with its resultant lack of decidual preparation of the right side, lends a corresponding lethargy to the other. The male ovulation may, or may not, take place; if it does it is merely an unhealthy and abnormal "slipping-away" of a blighted ovum, unfit to live and undeserving of the preparations made. Neither does it seek to live—it merely withers and becomes obliterated before its atomic existence is even sensed by the

surrounding tissues. The left side is curiously affected by this anomaly—and, owing to the lack of proper cleansing performed by its rival, remains in a congested condition, which equally affects the graafian follicle waiting its turn to throw out its enfolded ovum. The days pass, and finally the ovum is released simultaneously with the monthly discharge, to encounter the congestion attendant on such a condition, which spells danger to its existence. Thus it waits high up in the left fallopian tube, lying in wait until the flow has practically ended, when it proceeds towards the uterus for impregnation, and, if fertilised, to seek a likely nest in which to develop in security. If, on the other hand, it remains unfertilised, it is merged in the waste product of the uterus, and discharged as such.

In view of the knowledge that may be thus gleaned of the early life of an ovum, male or female, it is essential that the day be chosen on which fertilisation is likely to occur. If a boy be desired, the tenth, eleventh or twelfth days (counting from the first day of the period), are the most suitable; if a girl-child, the best days are the seventh or the third before an on-coming period. Where conception does not occur on the one day or the other, it is because the fruitless month has been tried instead of the fruitful; unless of course the temporary state of health, or that of the ovary itself, be not favourable to conception.

There is also a condition worth mentioning as helpful, though not essential in itself, and that is the

hour. For it stands to reason that if intercourse occurs after a long day of hard work, or long hours of enfeebling dissipation, the germ-cells of both parents will be less healthfully inclined and less vital than they should be. Whilst, on the other hand, if after a long night of perfect repose of all the tissues, all wastage being replenished by the restorative process of sleep, one wakes in the morning with this fresh renewal of vigour, it is natural to expect a more healthful impregnation from such intercourse than at any other time. But in matters of such delicacy it is permitted merely to throw out suggestions, to be inquired into and taken or left, according to the various ideas, habits and inclinations of each person, or couple, individually.

CARE TAKEN AFTER UNION

Among certain of the poorer classes, where children are apt to come thick and fast, a very usual hint tendered by the old-fashioned midwife or district nurse to the overburdened mother was to get up immediately after intercourse and empty the bladder, and the reason or sense of this homely piece of advice is not far to seek.

Conversely, when fertilisation is desired, it is equally important not to rise from bed, but to rest quiet for some two hours afterwards, and if the day chosen be within the fifteen days of the first day of period, to recline on the right side, thus facilitating

access of the fluid to the right side. Whilst if, on the other hand, the day be one within the nine days *before* an on-coming period, the position to rest in should be on the *left side* for two hours. Another very helpful position is one I referred to in the chapter on "Barrenness" in "Nature's Law," namely, the genu-pectoral, which, as its name implies, consists in reclining with hips raised on chest and knees for some five or ten minutes immediately after union. This position, in the case of any backward tilting of the womb, is of the most extraordinary assistance, as the cervix then occupies the lowest part of the vaginal cul-de-sac, and thus affords an entrance for the semen into the cervical canal. Abundant evidence could be cited of patients suffering from retroversion who by resorting to this expedient have succeeded in overcoming the impediment to maternity.

Some women have the habit of douching after union as a matter of ordinary cleanliness, and amongst American wives this practice is very widely accepted. Though commendable in some ways it is certainly far from conducive to offspring, as, supposing the seminal fluid to be lying merely at the entrance of the vagina, the inrush of water will certainly tend to dislodge any spermatozoa adhering to the channel. Daily douching is often advised in cases of chronic discharge, but, helpful as it is in such cases, it is highly inadvisable if the advent of an infant be desired.

Similarly, in order to prevent any disturbance of a

possible conception, no special exertion should be made within a day or so of intercourse ; and when a period is due no long walks should be taken, or much exercise indulged in. Rest must be the order of the day, not to any untoward degree, but after the midday meal and before the evening meal, whilst “ early to bed,” refraining if possible from the luxury of the hot bottle—bedsocks being a safer substitute for preventing cold feet—is a safe maxim to follow where a pregnancy is desired rather than an unwelcome period. And sweet, refreshing sleep, as the sure result of a light and sensible supper in place of the heavy meat dinner, is another of the many conditions that tend to make the chances of conception infinitely more possible and more likely to the wife whose lot hitherto has been a childless one.

V

THE DETERMINATION OF SEX

All that happens, happens in one of two modes : either as Nature has fitted thee to bear it, or as Nature has not fitted thee to bear it.—THOUGHTS OF MARCUS AURELIUS

THERE can scarcely ever have been a woman who, having become pregnant, has not wondered whether it is a girl or a boy that she is bearing, or if, by any chance, she is about to become the mother of twins.

Sooner or later such speculative thoughts must arise, and there is no query more natural and obvious, to which, until recently, the answer has been wrapped in such ignorance and mystery.

In my book, "Sex at Choice," the plan for sex-predetermination is elaborately set forth, and thousands of women have followed its teachings with the desired results. But in this book I shall only touch on it merely in order that the whole scheme of pregnancy may be clearly understood as being a process entirely separate and distinct according to the sex involved. Briefly then, the fact is that when a woman desires a son, she will have to use those days, within the first two weeks of the lunar month, or

within the first fifteen days, counting from the first day of the period, the male egg-cell being secreted on or about the third day of the menses. Then comes the third week of the lunar month—which for all women who are normal and of regular habit is a “blank week,” when no conception can occur. The very fact of its existence proves conclusively that, for conception to take place as it does, in a huge percentage of cases, within the next eight days of a second on-coming period, it must be an entirely fresh germ from within the ovary—and this time it is from the opposite one—a germ which, having matured, is expelled from the ruptured graafian follicle, and is ready for impregnation some days before the next is due. This ovum is a female one, awaiting fertilisation right up to the time of the menstrual flow which may, or may not, end its existence. Then it is that a girl may be conceived on either of those days in that same *fruitful* month.

And when that second period is over, the left ovary having operated already, then comes a month of complete calm and utter blankness—one of respite and quiet preparation for the next month of fruitfulness for both sexes.

This simple process, month in, month out, is part of the nature of all women who are entirely normal and healthy, as no doubt all were meant to be. That there happens to be a certain proportion of women who are not normal with regard to the working of

their ovaries or to the regularity of their menses, is no more extraordinary than the fact that nowadays there are scarcely two women out of every three whose bowels are capable of acting naturally without the aid of some aperient or other, whilst the fact is commonly accepted that only one woman in a hundred has a straight spine. Perhaps it is the fruit of civilisation that causes over 30 per cent. of women in our midst to suffer from irregular periods and from the possession of what, for lack of a better name, I have termed the "freak" ovary. In such cases the female ovum may either perish through the menstrual flow till within three days of its cessation or—but this is very rarely the case—it is only discharged from the ovary during the period and persists till the tenth or even the eleventh day. Such an abnormal occurrence is invariably the result of an inoperative right ovary—or one that has been removed or seriously disabled. In the same way that all abnormality must be a cause of suffering, or at best inconvenience, so also does the possession of a freak ovary deprive those women so affected of the full month of immunity following the activity of the left ovary. But it is only right to add that in each case where this condition obtains there has been a very definite cause to produce it. It is true that in certain families there would seem to be a distinct run on girl babies, or again a marked inclination to males, although this is exceptional. The reason, a physiological one, is

usually due to some genital spinal idiosyncrasy, or again, to the habit of fostering the girls of the family in the same errors or peculiarities of up-bringing.

For instance, I can cite six sisters of a former generation, whose mother believed in small waists, so much so that she encouraged her daughters to wear tight stays, whilst, like herself, they were all used to leading sedentary and self-indulgent lives. Five out of six of the girls married. Three of them gave birth to daughters only, though two of the three sisters each suffered a male miscarriage. The fourth had two girls, one living and the first still-born. The fifth remained childless. The sixth sister, at the age of 34, developed an enormous tumour in the right ovary and side of the uterus, which was removed, but since that very serious operation she has never been over strong. Doubtless had she married, the tumourous condition of the right side, being "one of long standing," would have prevented her, similarly to her sisters, from having male issue.

The reason for this apparent anomaly would be found in the fact of the right ovary being the one to suffer most from a lack of proper space in which to develop its more ample proportions. Secondly, there was no doubt, in each case, some congenital lateral curvature of the spine, affecting the right ovary, whilst the left one, thriving normally, soon outstripped the right one in growth and vitality.

On the other hand, one may find a family of girls

brought up to active and hard working lives. They will become broad-hipped and muscular. The tendency in such a type will be towards the conception of male issue, in that when they conceive sons they will be far less likely to miscarry at the eighth or fourth month, which is the point at which this happens in approximately 80 per cent. of all such cases. Secondly, their right ovary being permitted to develop normally and unhampered, it will naturally carry a greater number of healthy male ova than the left, smaller, ovary will carry of the other sex.

But then again, one may meet mothers who deplore the fact that none of their married daughters have the babies they crave for. I know of three such daughters. Peritonitis, having twice attacked the eldest before she was fifteen, rendered her completely sterile. The second suffered from chronic ovaritis. Since her earliest periods she had hunted, bathed, danced and played golf, although the pains she experienced might have sufficed to warn the mother if not the girl. The only maternal effort in her case was a problematic miscarriage.

The story of the third girl is the saddest of the lot. She was a handsome and apparently healthy woman, who would have made an ideal mother ; yet through no fault of her own she can never hope to have a baby. At the early age of ten she had to undergo a severe operation, when the appendix, along with the right ovary, had to be removed. A few years later

pains in the left groin caused her to seek advice, and it was found that the remaining ovary had become so cystic as to render imperative its complete removal. Such cases fortunately are not frequent, but it is deplorable that there should exist any of this kind to record—for they reflect seriously on the parents, betokening as they do either utter neglect and thoughtlessness on their part, or a foolish and erroneous method of up-bringing.

And so it is that we come back to the one and inseparable condition of sex-determination—the condition of the ovary—its health or its disease. And the fact that certain biologists, basing themselves on Mendelism, choose to term the human female “mono-gametic” and the male “di-gametic,” in no way alters the supreme fact that *on woman alone depends the ultimate determination of sex.*

When the medical practitioner who may or may not have given half a year—or half a week, let alone a lifetime—to the study of the subject, definitely asserts that ova, male and female, may proceed from the same mammalian ovary, he ignores definite facts which are persistently being discovered and reported by modern biologists themselves. Thus, the *British Medical Journal*¹ remarks, in relation to twins, that they

“may or may not be of the same sex, but that they occur in the proportion of one pair of males

¹ September 17, 1927.

and one pair of females to two pairs of twins, male and female. The two fertilised ova pass into the bi-cornuate uterus and become attached to the uterine mucosa. If they have been discharged from the *same ovary*, the zygotes usually develop in one and the same uterine horn. As the zygotes increase in size the embryonic membranes of the two foetuses meet to adhere and in many cases to fuse. If such fusion occurs an anastomosis of their blood-vessels can result, so that a common vascular inter-communication may become established. It is to be noted that in the case of twins involving one male and one female there is no such anastomosis."

Why ? Because they originate from separate ovaries, and are wholly distinct " male and female," deriving their substance from separate placentas. They are two zygotes formed from two ova, which in at least 50 per cent. of instances have been fertilised on different occasions. And the fact of the " intermingling or fusion of twins of the same sex " (such as is the case in Siamese-twins), proves conclusively that if of the same sex, twins must originate from the same ovary. Is any further proof required to demonstrate the truth of the side-theory than those constantly provided by the very scientists who for so long have sought to demolish the fact of " one ovary one sex " ? It is noteworthy that I have never heard it contradicted that twins are hereditary from mother to daughter, the reason doubtless being that so far there are no " twin-spermatozoa." Had a two-headed spermatozoon been discovered, it would

assuredly have been contended that to beget twins lay with the father! But even so, there would still remain the fact that the successful production of two zygotes (or more) must depend on the existing space and decidua suitable to the multiple pregnancy—so that both may live and thrive to full term.

Another fact, which is encouraging to one watching for signs of the recognition of truths hitherto ignored, is that since the publication of my books, twins of mixed sexes are frequently mentioned as “not real twins at all”—and here again this tacit admission that boy and girl-twins, proceeding as they do “from *separate* ovaries,” and “so curiously unlike” when allied also to the findings of the separate impregnation of the male twin and of the female, forms one of the surest testimonies to the “side-theory.”

As the result of recent investigations, however, an Italian doctor and biologist¹ suggests determining the sex of children by an artificial alteration of the nutritive elements of the generative essences. Injections are to be given before conception. Whilst this writer maintains that the tendency is for active and less well-nourished women to produce males, and idle, well-nourished women, girls, in which there is an element of truth, any credence one might lend to his other suggestions is sadly shaken by the statement that “sex depends largely on the age of the parents.”

The French have consistently maintained that the

¹ Dr. Lupo Pichezzi. Rome. December, 1927.

sanguine temperament begets boys, the lymphatic girls, and it is not disputed that the blood of a woman pregnant with male issue reacts quite differently to that of a woman bearing female issue; doubtless there was some preparation before conception for such a condition.

For instance, I am convinced that when a woman is in a lymphatic state of health brought about largely as a result of diet, a complete change to a purer and less fat-producing, though more bloodmaking, nutriment, may assist in enabling her to conceive a child of the male sex—one requiring a more substantial effort of the generative muscular system.¹

Thus while I emphasise my insistence on the enormous influence of proper food in cases of *sterility*, complete or merely uni-lateral, I lay but small stress on food values as applied to women in sex-determination. If it is a fact that food can vitally influence the lower animals in their precreative output, the strong probability is that women are generally affected in a greater or less degree by what they consume. The case of a larva first destined to become a worker, but converted into a queen, illustrates how the teleological status is affected by nutrition. *But not the sex*: and to suggest that food values may be entirely responsible for sex causation, as some biological workers have done, is what Reinheimer calls “an utter disregard of qualificative analysis,

¹ I pursue this question further in an Appendix.

on which the title 'determination of sex' has been applied to crude experiments producing parasitic antithesis."

Until biologists of all shades and distinctions recognise the simple yet supreme fact of woman's prerogative in the matter of sex-determination, they will continue to "grope endlessly in the dark." That this great truth is slowly, almost subconsciously, entering into the minds of scientists is becoming more and more clear. Only within the last two years have they come to acknowledge definitely that "the sex of the human egg is determined at the time of fertilisation," a step in the right direction. Then again, the truth as to the origin of twins is becoming more and more accepted. And lastly, we have an authority second to none admitting that between my theories and Mendelian science "there exists a possible mode of reconciliation." For instance: "If ova from the left ovary only admitted X-bearing sperms and those from the right only those without X, a formal reconciliation would be given."

But, to go further, is it proved in any way that the "sex-chromosomes" are sex-begetting? As Hermann Reinheimer says: "the Mendelian premises require scrutiny." Is it not more likely that the X-bearing sperm is selected and attracted to the left-sided ovum because of the special sex-linked inherited attributes it carries which are required for the line of development of the female zygote; whilst the male ovum

attracts the Y or O-bearing sperm as suitable for the creation of the male zygote? Thus, no matter how many X-bearing sperms are offered, they will be unacceptable, if there be no female egg to receive them; and similarly, if there be no male ovum to attract Y-bearing sperm, it likewise will be disregarded as useless. In each case the offering will be as vain as when a condition of complete ovarian sterility is existent at all times, despite the healthy and vigorous nature of the spermatozoa offered in the seminal fluid.

And when we get the question, "Why can one distinguish no difference between the male and female ovum?" the obvious answer is that, just as the pure and impure "dominants" of Mendelism cannot be distinguished in appearance—only the test of breeding can do it—so, up to now, it has been impossible to find any apparent difference between the male and female ova; possibly it may lie within the nucleolus or cytoplasm of the ovum.

But if it is still impossible to discover any visibly different characteristics in the human ovum, it is becoming increasingly clear how to distinguish the woman likely to have male children rather than female, and vice versa, and this study has formed the engrossing topic of my whole thought for some years past, for unless one can read the symptoms of a certain condition it is impossible ever to hope to remedy it.

Incidentally, I should like to lay before my readers certain little peculiarities which denote the inclination to one sex or the other—all of which have an important bearing on the subject. One is the question of the better development of the teeth on one side or the other, according to the state of one ovary or the other. Biologists have recorded that where the lateral incisors not only fail to appear, but are missing altogether, the corresponding ovary is either totally atrophied or congenitally inoperative; and when there is a complete absence of the lateral incisors in the female she will not bear children and her menstrual discharge will be scanty. Of course, this refers to the congenital absence of the teeth, and not to their loss by accident or to removal. I have myself found this to be the case without exception.

Similarly, when the nose is slightly crooked—inclined towards one side or the other of the female countenance—as is more often the case than is realised, it proves an ovarian weakness on the side towards which the nose is drawn. For instance, when the bone of the nose leans to the left, there is a clear indication of the better development of the right, or male, ovary than the left, and vice versa.

There are other signs. In a conversation I recently had with an eminent biologist, I ventured to submit to him some of my latest deductions. Conversant with my books, and, generally speaking, entirely in agreement with my theories, he displayed intense

interest in the question of the effect of spinal curvature on sex-determination. I pointed out to him with what precision I could foretell the inclination to male or female offspring in women according to the tilt of the shoulders and hips. For instance, when the left shoulder is higher, and shorter from neck to arm than the right one, or again, when it is pushed out and forward, the organs corresponding to that side will be less well developed, dwarfed, depleted, or congested. Unless there be grave local disability of the ovary of the other (right) side, there will be a natural preponderance of boys born to that woman.

When, on the other hand, the right shoulder is hunched and awkwardly tilted, the spinal curvature will have affected the organs, and incidentally the ovary of the right side, to such an extent, that to these women daughters only will be the order of the day—although again this inclination will be subject each time to the local condition of the ovary in question.

For many years when out walking I have made it my business to scrutinise every mother pushing a pramful of children, or leading one by the hand. I keep behind her and study carefully her every line and the tilt of her spine. After settling in mind the sex which she would be inclined to bear best, I proceed to review the contents of the pram and otherwise to ascertain the sex of her offspring, and thus, with each passing year I become more conversant with the

spine of the woman who will easier carry male infants, as distinct from the one destined rather to carry females.

The exceptions to this rule—and there are quite a few—are caused by some local disability, some ovarian weakness which may be sufficiently real to counteract the natural inclination produced by a certain and special curvature of the spine.

And what, you may ask, is the history of the woman who, straight as a young sapling, suffers from no such disability? It is melancholy that the truth should have to be recorded, but the evidence is that of no less an authority than the famous spine specialist, Dr. Bernard Roth: “I see nothing but crooked backs everywhere,” he wrote in 1883; “there are scarcely one or two girls in a million who possess a really straight spine!” But the woman blessed with a perfect vertebral column, and provided with a pair of absolutely healthy ovaries, will be in a position—the entirely natural and, what should be, normal one—of being capable of bearing an equal number of children of both sexes, at choice, making full use of the times and dates placed at her disposal, and free play with the fruitful or fruitless month, as she may be disposed.

And because so much can be done, such marvels performed by the science of osteopathy, to alleviate these spinal idiosyncracies, and because such perfect ovarian cures can be effected either on the one side or the other, it is not necessary for any wife to be

downhearted or to despond on account of such disabilities as I have attempted to describe.

I was recently invited to meet a young wife, in order to reassure her, if possible, as to the sex of her unborn child. She was then six months pregnant, and over-anxious to have, for her first baby, a son, after many years of married life. Unless it be a matter of happy indifference, I prefer to keep my own opinions to myself, but in this case my position was a trying one, as it appeared that she was fretting lest her child should be a girl. Thus, had I diagnosed a female child, to have told her the truth might have disturbed her seriously, and the other alternative, that of feigning ignorance or doubt, would have been very upsetting to my hostess, who had rashly promised an accurate answer to the keenly anxious mother. However, I was saved from such a quandary by the absolute straightforwardness of the case; for, as soon as I entered the room and the woman's outline met my practised eye as she sat reclining back on the sofa, my mind instantaneously registered a male pregnancy. However, I said nothing, till, over a cup of tea, I had put one or two leading questions, and then, to make assurance doubly sure, I requested her to rise, and pull herself up straight before me. Yes, there it was: the tilt of the shorter left shoulder, the slight hunching of the blade, the small, slight back, and the larger right hip. "I thank you," I said; "it's all right—a boy within three months."

(The child, a son and heir, was born actually some ten weeks later.) The relief of both those women was overwhelming, and it was then only that I realised how fortunate it was that I was able to give them such full assurance.

It is here that I shall endeavour to make as clear as possible the exact grounds on which are based such diagnoses as I am frequently called upon to make. The external evidences from which I draw conclusions are far easier to detect in some women than in others. For instance, those who have not the means to encase their bodies in costly maternity corsets or well-made belts, or who "let their figures go" from the earliest days, proclaim the sex of their impending offspring far more definitely than those who have been careful to restrict and restrain their naturally enlarged proportions. The simple and straightforward enlargement of a male pregnancy is "all to the fore," coming into a decided point at the navel—yet always relatively lower than when the foetus is female, whilst at the back there is little to notice, and the pristine outline of the waist may remain more or less. The bearing has a backward tilt, throwing the abdomen more out to the front, and there is little of the *hunched* appearance so evident when a girl is on the way. There is also a freer movement and carriage altogether. Dr. Chavasse quotes a passage from a book published during the "great and clever era" of Queen Elizabeth, which runs: "If it be a male, then shall the woman

with child be bigger towards the right side than the left, for commonly the man child lyeth in the right side, the woman in the left side. . . .”¹ The right breast is larger, the nipple more pronounced and more active ; the right eye brighter, the right cheek more easily flushed. When there are varicose veins the right leg is apt to be troublesome when usually only the left leg has been affected. The heart-beat at the sixth month will be heard distinctly high up on the right side ; in fact so discernible are the heart-beats in some women that often the outer garment of the prospective mother—if she be reclining on her back—may be seen distinctly moving, or palpitating to each rapid pulsation. I have never seen or noticed this in female pregnancy, although I have more often *seen* the female movement from left to right than that of the boy infant from right to left. It is a kind of unmistakable plunge from one side only, especially if the child be within a few weeks of its birth. With a girl, also, the symptoms described as for male pregnancy are generally reversed. The left breast may be no larger, but the areola will carry more follicles. The child will be carried higher up, directly under the heart, and will spread broadways, being less pointed in front. It will tend to press the waist-line at the back, so that the upper part of the body bends over and the balance is tilted forward rather than backward. Towards the seventh month the

¹ “The Birthe of Mankind, or the Woman’s Booke.”

heart, more difficult to locate than that of the male, will be heard usually fairly low on the left side, and the beat will be less pronounced, though more rapid.

As regards the distance from the navel to the hips, with a tape measure it is simple to find out the exact distance of the one side or the other. With a boy the right side will measure the most from the navel to the hips, and with a girl the distance will be greater from the navel to the left hip. The number and size of the follicles round the nipple are a reliable sign of sex, although in some cases less discernible than in others.

Another sign, not always present, is a slight cramping feeling down the right thigh, especially at night-time, due to the greater increased pressure on the one side or the other. This is especially noticeable with boys and is felt about the seventh or eighth month.

With a girl there will be a much greater disposition to leucorrhœa or a slight discharge of "whites" than when a boy is "on the way." In fact numbers of women—and this condition is to be deplored—have two or three periods during early pregnancy, and quite a few continue their courses all the way through the gestation of a girl. Whereas I can count on my fingers the number of male pregnancies that have come to my notice when this has occurred.

One hears repeatedly of blood-tests that enable one

to discover the sex of the unborn child, and in time these discoveries may become more popular, but we have yet to learn what the state of the blood may be of a woman pregnant with boy and girl twins! In such cases there exists also a "bruit de souffle" in the heart-beats, and more breathlessness, while similarly there appears to be a greater liability to the danger of albuminuria in the woman pregnant with female issue.

In order to foretell the sex of twins, one should bear in mind that, if boys, they will both lie to the right, a fact doubly noticeable as compared to the single male pregnancy. And yet the size in the beginning will be less noticeable than with a single boy, owing possibly to the fact that two take longer to "get started." On the other hand, with two girls the increase is noticeable at the second month, there being a markedly puffy appearance all round, and this will show all along more conspicuously than with a single girl-fœtus. This is explained by the fact of the doubly increased alteration of the blood and fatty tissues, together with the earlier start afforded by the volume of menstrual flow which was pending at the moment of their conception. With boy and girl twins there will be a great difference according to the position of the fœtuses, and the symptoms will be more baffling till towards the latter months, when the position of the fœtal hearts may indicate the fact of the two-sexed twins.

In such cases, however, as with *all* multiple pregnancies, one indication, a positive one, will always be present, and in the words of a shrewd mother of two sets of twins, that symptom is “*everything* is ever so much *more so*.”

Twin-babies have only about one-fifth as much chance of living to grow up as other babies, but their special danger period is during the first three months of life ; if they can be safely steered past this critical stage, they have a good hope of survival. Twin-boys appear to be far more susceptible than twin-girls, while boy and girl twins show a combined mortality considerably less than that among girl twins. Thus, the infant mortality per thousand is :

354 for boy twins,

291 for girl twins,

225 only for boy and girl twins.

Does not this fact in itself offer fresh proof of the activity of *both ovaries* and of *both cornua* of the uterus, thus relieving the one ovary and side of the uterus from the *double* effort that it is forced to sustain with twins of the same sex ?

Before proceeding further I should like to touch on those cases of pregnancy, of which we may all know, or have heard about, which are so disguised and repressed as to be scarcely noticeable until the seventh month or more. I can remember several, and in one instance the family and all the immediate entourage were entirely ignorant as to the

condition of a young girl of eighteen until her child was actually in the world ! There was neither doctor nor nurse present, but the mother herself told me, “ You could have knocked me down with a feather, when, after getting my girl on to the bed—so bad was she with what I took to be stomach pains—a tiny baby girl was born before I could turn round.”

It is only fair to say that in such cases the child is usually a first one, and very small in size.

I once saw a girl bicycling at top speed up a hill twelve hours before her first infant was born, and so usual was her behaviour and appearance that no one, not even her mother, ever dreamt that she was about to become a mother, till the doctor was called in one hour before the actual birth. In these two cases the child was a girl.

Similarly, in Boulogne I knew a young girl of sixteen, who was able to fool even the family doctor, until, owing to the severity of the patient’s “ abdominal pains,” he insisted on an examination. In his amazement he turned to the anxious mother with the words : “ Why, this is a child’s head that I feel ! ” and sure enough, five minutes later a very diminutive, but quite healthy, boy was born !

Another instance of secret pregnancy was that of a working-girl in a situation, who used to wear tight stays, which she actually slept in at night ; during the day-time she wore a loose pinafore with a golf jersey to help to hide her figure, and when she went out of

doors a thick loose coat completed the deception. Although she went home for her holiday a week before the birth, her own mother never suspected a thing wrong with her daughter. Thus she was able to defy the vigilance of the maternal eye till within three days of the child's full time, when she slipped away to a "home" to "lie-in," and to this day her parents are ignorant of this episode in their daughter's life. The child, a boy, is now two years old, and no one of her friends has ever suspected the calamity of an illegitimate child in that otherwise most respectable family.

In such cases the winter months are kinder than the summer; they act as a cloak to hide these manifold sins and offences. Perhaps that is why all women so much prefer the spring babies to the autumn ones. In the early months of gestation little need be noticed, and as the cold weather approaches the thicker outer garments serve to swathe becomingly the increasing enlargement, whilst the extra warmth of the little being within imparts an added comfort throughout the inclemency of the winter season.

On the whole it is perhaps easier to hide the presence of a female foetus than that of a male, and owing to the scant pre-natal care bestowed on such unwanted little mortals the girls, being the hardier, are more apt to survive in the proportion of 106 to every 100 illegitimate males, whereas the reverse ratio is approximately the case with the girls and boys

born under the happier and safer auspices of wedlock.

As regards the length of gestation and the probable date of arrival of the expected infant, there still exists a certain haziness, especially when the child is a female. Since it is certain that a good 60 or 70 per cent. of girls are conceived in the fourth or last week of the lunar month, it is only owing to the ignorance of this fact that one so often hears the phrase: "My little girl arrived three weeks late; she was overdue," etc. And were it not for the fact that the greater percentage of girls are only carried thirty-eight weeks, which is "full time" for the girl infant, there would be far more inconvenience caused by miscalculation of this sort.

Why certain medical men have chosen to label the last week as "perfectly safe" is largely due to Dr. Chavasse,¹ who concluded that girls "arriving late must be carried longer than boys," as they must do if conceived at the far end of the lunar month (or three and a half weeks from the last period, and carried a full thirty-nine weeks). And it is on this rock that the biologists of every age have foundered, in attempting to discover what is in fact the simple law of sex-determination, applicable to women, and *women only*.

For instance, a girl conceived on the 1st January, will probably arrive on or about the 24th September,

¹ "Advice to a Wife." p. 187.

instead of the 1st October, as might be expected. But the doctor consulted will have given the date as from the period started on the 8th December, and allowing ten days from that first day of period he will fix the *18th September* as the likely date. Thus, the child when she arrives on the twenty-fourth will be thought actually to be "one week late"! Whereas, in reality, she will have arrived one week early, i.e., thirty-eight weeks instead of the thirty-nine, which is usual with a boy.

Similarly, supposing the child to be conceived on the 21st January, in all probability she will be born on the 14th October, and yet be full time and of average weight; whereas the date of arrival would appear to place the conception of the child on or about the 14th January, i.e., within a week or so of the last period. That this mistake is constantly being made goes without saying, and is mainly responsible for the reiterated statement that "the fourth week is one of complete immunity," an assertion to which is due many a parental disappointment when an unwanted girl-child arrives in due season, having been conceived within a few days of an on-coming period.

On the other hand, it is only fair to point out that occasionally a surprise causing great delight may be the result of the use of this last week of imagined "immunity."

Such was the case of a mother of seven boys, whose wish for a girl had never been gratified. She had

noticed that they all had "started" within a week of the cessation of her period, and had concluded that the statement as to blankness before an on-coming menstrual flow was correct. In the meanwhile, however, she had undergone a treatment for a long-standing weakness of the left ovary, but none the less great was her surprise when she found herself to be pregnant, although the only possible date of conception was nearly four weeks after her last period. And sure enough, forty weeks later, a very fine girl, weighing $11\frac{1}{2}$ lbs., was born to the astonished and delighted mother.

To certain women no such gratification may occur, for the reason that there exists some disorder of the left ovary or tube causing sterility of that side ; therefore no ovum being forthcoming, they remain immune to conception, male or female, before an on-coming period.

Where the damage is irretrievable, without any suffering or ill-consequence resulting from the condition, the wife must rest content with male issue, and be thankful that worse does not befall her.

Many women are convinced that they can only conceive just after a period, and so sure are they that they refuse to believe that their baby-girl was conceived two or three weeks later, and are pleased to term this infant "an accident." In answer to a searching enquiry as to dates, one is met with such replies as : " Oh ! I know she was not started at

the end of the month, because I never start then " ! —and perhaps her only other child is a *boy* ! Or again : " Oh, no ! I am never ' careful ' before the period, because I read somewhere that it's a safe time " —or choicer still is this style of reply : " Yes, it is odd baby weighed only 6 lbs., *being a forty-one week child* ! Still, I am sure she did start just after the period, because I remember *thinking so at the time*, so I never bothered to mark down the later dates " !

" A little knowledge is a dangerous thing," especially in sex-matters, and some people think that, provided they choose the tenth or twelfth day for male issue, the following days may be equally used with impunity. They forget that the male ovum may lack vitality, or for some reason remain unfertilised, while later the more vital female egg may actually attract the sperm-cell, so that whilst a male infant is fondly looked for, in reality a female child is on the way.

So certain is it that the last days before an on-coming period are " girl-time," that I could cite many cases of women who can only conceive a day or two before their menses are due to arrive.

There are also certain cases where, under medical supervision, in order to effect impregnation, artificial insemination is resorted to, when there can be no shadow of doubt as to the day of conception. I know of three such instances. In the one the seventh day

before the period was chosen ; and in the two others the third day before, and each time a healthy girl was the result.

It may be added that previously, in view of the need for a son and heir, in each case the tenth or twelfth day had been tried in vain.

The lack of response to apparently suitable times and conditions for one sex invariably indicates weakness in one ovary as distinct from the other ; and it is in the study of such anomalies that a wide field is open to science for further investigations.

When the workings and diseases of these delicate organs are better realised and understood, and simple and gentle means brought into use to free them from the various adhesions and inflammatory troubles productive of sterility, uni- and bi-lateral, and when also the young girl is taught in the schoolroom to preserve by common sense, from injury and disease, her vital organs of procreation, then indeed will the power be ensured, to all women, of a free and certain choice in the sex of their future offspring.

VI

PREGNANCY

The strange and passionate precipitance of maiden into
motherhood,
Which changes body and soul by Nature's law.

BROWNING

WHEN a woman becomes pregnant she may fancy or suspect the fact of her condition at three days, or she may remain unaware of it until after she has quickened. One hears or reads of women who assert that they never guessed or even dreamt that they were in that condition until they were about to become mothers. Whether such asseverations be true or not may be left to the discretion or judgment of the reader ; but, personally, where such exaggerated innocence or ignorance is concerned, I am inclined to be rather cynical.

When the symptoms of pregnancy are experienced very early, it is usually in cases of extremely sensitive women, very much on the look-out for the accomplishment of their desire—the women who count on it and discern the very first sign of what they are hoping for.

It is known that immediately on conception the

uterine system becomes endowed with a remarkable increase of vital action affecting its various constituents, so that it is thrown into a condition which one may consider a "state analogous to inflammation," and gradually the uterus acquires a principle of growth, which steadily proceeds, until, instead of being an insignificant organ buried deep amongst the contents of the pelvis, it undergoes changes so remarkable and, in the course of a few months, attains to dimensions of such magnitude as to present a series of phenomena which are the most extraordinary and beautiful in the animal economy. Whereas the virgin uterus is about $2\frac{1}{2}$ inches long, and $1\frac{3}{4}$ broad, and about one inch from back to front, with a cavity that should scarcely contain the kernel of an almond, at the end of nine months of gestation it has grown from 12 to 14 inches long; from 9 to 10 broad, and from 8 to 9 inches from back to front, whilst the capacity of its cavity has increased more than 519 times ! And yet, within a few weeks of parturition the organ has completely contracted again to its original diminutive state ! It can scarcely be wondered at then that, almost immediately after conception, in view of the great increase of the vascular supply directed towards the organ and its appendages, and of the nerves of the womb, both in number and size, the woman should undergo a subtle yet prodigious change, both in body and mind.

Perhaps the first sign with all women, after the

suppression of the menses, is a curious stretching sensation low down in the uterus itself, as if all its fibres were being separated, its texture softened, and its bulk trying to increase. Others, again, experience merely a curious tightening or irritation of the genitals. The unfolding of the navel is a sign to be noted at about the fifth or sixth week, whilst a little stiffness round the parts is felt on rising after having sat a while, and may last on and off during the whole gestation. Another sign at the third week, about the twenty-first day, is a sudden clutching feeling in the middle of the back at about midday, and if one has been moving about overmuch, it comes after resting. It is quite different from the dragging "unwell" backache—it is an unmistakable "safe" sensation, high up and instantly recognisable by those already initiated, though it is only right to admit that the "back-clutching" is not invariably noticeable, whilst the "morning sickness" or "sick stomach" of pregnancy is generally the first sure sign to be recognised as such. With some it starts the moment they awaken; with others only with the effort of washing and dressing, continuing until sufficient breakfast has been taken to assuage the qualms of the nervous and uneasy stomach; or, again, it may start before supper or dinner, when a curious weariness is apt to creep over one at about 6 or 7 o'clock in the evening. It is only on taking into account all these various symptoms that at the third

or fourth week a woman begins to realise that they may all be due to the same cause ; and whilst lying down to rest and thinking the matter over, suddenly, in a flash, she arrives at the momentous conclusion that motherhood has overtaken her, and that for the first time, or once more again, she has been selected for woman's greatest venture.

Perhaps the most trying symptom—the most common one also—is the obstinate “ morning sickness,” which is sometimes so bad as to cause great inconvenience. It is thought to be caused by sympathy between the womb and stomach, but it is largely due to the collection of poisons in the stomach which, owing to the increased work thrown on to the system, it becomes less easy to eliminate. When the sickness is really distressing, all solids should be stopped and three pints of milk taken daily ; or, if preferred, Benger's Food sweetened with a little brown sugar ; or, again, bread and milk made with standard bread. After a time the patient may be brought back to a solid diet of vegetables and fruit, but no meat or salt should be allowed for the rest of gestation.

The effect is almost magical, the prospective mother being made well and happy again. If, however, there be a slight return of faint or sick feelings towards the end of the day, a good plan is to recline on the left side until supper time. And when other symptoms, such as heartburn, indigestion and con-

stipation, are apt to persist, there is no more simple cure, all through gestation, than to stick to a perfectly simple style of supper, of which a few examples are the following :

1. A cup of marmite with two or three slices of brown bread and butter.
2. A bowl of standard bread and milk made with hot water and hot unboiled milk added.
3. Dried figs and dates, and brown bread and butter.
4. St. Ivel's non-lactic cheese, and brown bread and butter.
5. Stewed or roast apples and a glass of orange-juice and warm water.
6. A bowl of Benger's food, made with all milk, sweetened with brown sugar.

It is useless and harmful to attempt to " feed up " for the first four months, unless the appetite be there, the less taken the better. Just so long as the nausea persists, it is unwise to eat fish, eggs, puddings, cakes and other such food. In some women there is a natural tendency to redundance, especially with female issue, and this is too often increased by mismanagement of diet, neglect of the bowels and want of sufficient exercise. In such cases in order to be rid of unnecessary fat, acid fermentations and poisonous accumulations, partial abstinence or the lightest of foods should be selected, especially after midday, and all solids replaced largely by liquids, such as

marmite, barley-water, vegetable and fruit-juices, or milk and baby-foods.

An early symptom, sometimes noticed at the third or fourth week, is an irritability of the bladder ; there seems to be a more frequent desire to micturate, and the water is light-coloured and runs slowly like it does after a slight chill on the kidneys. These symptoms disappear after the first month or two to return about the last few weeks before the commencement of labour. In stout women who are inclined to hysteria, this symptom is much more marked than in slight women, or those of a more placid temperament.

As regards the “ emaciation ” by which onlookers invariably profess to discern pregnancy in the early stages, I have found it more usual in *male* than in female pregnancies. In the latter, though there may be a certain falling away of good looks for a month or two, the face, like the body, is more inclined to an “ all-round plumpness ” than anything. For generations it has been a common remark that women who emaciate during pregnancy bring forth healthier children and have easier labours than others, whilst according to Denman, ‘ if the mother has little uneasiness and grows corpulent during pregnancy, the child is generally small.’¹ In fact, so long ago as 1863, Montgomery (one of the greatest authorities on pregnancy) stated that nearly all the evils of parturi-

¹ “ Introduction to Midwifery,” 5th edn., p. 237.

tion, such as protraction of labour, inflammation, hæmorrhage, inordinate secretion of liquor amni, with relaxation of the uterus after delivery, may owe its origin to improper indulgences in diet, and want of attention to the action of the alimentary canal.

Quite a number of women may menstruate once or even twice after conception, and Brierre de Boismont states that of 1,200 he found eight in whom menstruation appeared during two, three, and four months after conception, and three in which it occurred during the whole period of pregnancy; whilst one woman menstruated during eight pregnancies.¹ Here I would add that these were probably female pregnancies, as it is far more rare for menstruation to occur with male offspring, and if it does occur, usually the boy is born dead or rarely survives a week or so—whereas the girl children survive and are apparently little the worse for this exceptional condition.

Within the first month of pregnancy there is a sign common to all women, and this is a certain enlargement of the breasts and a hardening and redness or pinkness of the nipples. Warmth seems to be the only comfort when the nipples actually ache, and to bathe them with hot water allays the pain. Usually such sensations are more noticeable on one side or the other, and it is almost invariably the side corresponding to the active ovary.

¹“*Brit. and For. Med. Rev.*,” October, 1842 p. 386.

Some women have quite a little milk or moisture in the nipples from the earliest weeks, and these cases rarely have trouble in nursing their infants ; although there are plenty of good nursing mothers who see only the slightest indications of moisture. Yet this, however slight, is a reliable sign of pregnancy, especially so in a first one. As the weeks go on a moist appearance is noticeable generally, with slightly swollen veins meandering over the surface of the breast and running into the coloured disc. Later on there are also little branny scales on the apex of the nipple or around the disc with a ring of whitish spots encircling the “ true areola.” In negro women the areola becomes jet black, whilst in the Albino it is of a delicate rose colour. In the fair-skinned Anglo-Saxon the nipples assume a rosy pink, whilst in brunettes they turn to a dark brown, which persists throughout the period of gestation. It may be said that darkness of the areola rarely depends on other causes than pregnancy, and that sign, along with an increased secretion of saliva, are recognised by Orientals as a sure and sufficient sign of pregnancy. At the end of the second month the puffy turgescence, though still slight, not of the nipple alone, but of the whole surrounding disc, and the development of the little glandular follicles with the developed state of the mammary glands are what are most to be noticed. These follicles, or tubercles, of the areola have really

a most important character, and have a more intimate connection with the peculiar structure and function of the breasts than is realised, for they are closely connected with the lactiferous tubes, so much so that in some women a fluid may be perceived issuing from them—in fact they are a “constellation of miniature nipples scattered over a milky way.” And so intimately connected are they with the ovaries that, by counting the number of these follicles on the breast of one side or the other, it will be found that there are more in number and size on one side or the other according to the sex of the embryo. Quite lately I have taken count of the number on the breasts of ten women with child. In seven cases I counted from eight to twelve follicles on the right breast, and four to seven on the left. These women gave birth to sons. In the three others the number of follicles were in a reversed ratio about the same, the left holding the most, though less noticeably developed. These mothers gave birth to girl-babies. Where women have had boys only, the symptom is more clearly marked than where the present male foetus follows on a girl-pregnancy and vice versa.

In the same way, where the last child was a female, when pregnant with a male, there will still remain a little puffiness on the left side of the abdomen remaining from the girl child's position during the preceding pregnancy, although it is only low down on the right side that the hardening of the uterus may be felt.

And this happens the other way about when the facts are reversed.

There is one symptom that seems to have been quite overlooked as regards the sex of the embryo, and that is the earlier and more spontaneous enlargement of the abdomen when the child is a girl. With a male there is, on the other hand, a certain boardy flatness of the abdomen, which persists right on to the second or third month, and the cause of the peculiarity may well be that, being discharged after the catamenial flow, the male ovum finds little or no secretion ready for its immediate nurture, and has to await the elapse of another menstruation before acquiring sufficient efflorescent decidua to make a start. The female ovum, on the other hand, being usually fertilised just before an impending period, is able to profit by the suspension of the latter, with all its menstrual secretions developing promptly on what the uterus would otherwise have discharged.

With twin boys this "boardy" flatness is still more marked, and is all the more peculiar in view of the rapid change of the abdomen to a far greater size than in a single pregnancy, as the time approaches for the "quickenings." Directly the uterus rises from the pelvis at the twelfth week, there is a great change—in the space of a few days—in the apparent size. With twin girls, on the contrary, there is the usual puffiness of the tissues as at the early stages of girl-pregnancy, but in the multiple gestation it is,

like all the other symptoms, greatly exaggerated. In a twin-pregnancy the nausea, as a rule, is far worse than with a single embryo, but it starts later, as do most of the other symptoms. It would seem that the natural process of uterine Nature, before embarking on the big venture of a double (or triple) pregnancy, is the gradual gathering of herself together, lying low, with a minimum of sensation or outward expression; and then at the auspicious moment to launch all her batteries, release all her forces, in order to attain to her immense goal, the production of two perfect human beings, instead of the single one that she is expected to bring forth, and for which only the organism was normally equipped.

The first two months there is nothing to notice—far less than usual. At the third month the effort is gradually unfolded in a kind of sounding or survey of the premises, and, if the two embryos survive the second month (for frequently one may die, and withering, disappear within the womb), this is followed by such an upheaval as can only be realised by a mother having experienced the actual event. She is beset either by overwhelming backaches and weakness, or the most obstinate nausea, faintness and weariness. Directly this begins she must conclude that something extraordinary is happening to her, and set to give herself every chance in calm restfulness and careful management of herself. I am not, of course, putting her in that category of hysterical

women who imagine, on the smallest provocation, that they are about to have twins or triplets, and who finally give birth to one puny infant.

The biggest size I ever noticed as attained in pregnancy was that of a poor country woman of the tramp type, who came to the door for alms and clothing, as she asserted that she was about to have triplets, a statement strongly supported by her appearance. I could only manage a layette for one, but I told her that probably it would be sufficient, at which she was quite offended. However, when I went to see her in her cottage a week later, I found her in bed, having given birth to a baby girl the day before.

“ Good gracious! Where are all your babies? ” I exclaimed.

“ Well, I did think it were triplets,” she answered, “ but nurse said it was mostly all fat, or water—except for *this*,” and from under the blanket covering her capacious person she fished out the tiniest scrap of humanity I had seen for a long time. “ Like a mountain giving birth to a mouse,” I suggested to the village nurse, as she saw me to the door. “ Yes,” she returned, “ I thought it was dead when it was born, However, I gave it a good smack and it decided to live. But,” she added, “ it took more than one bath to get it clean and presentable-looking! ‘Drink babies,’ I call them!” and she shook her head sadly.

And I may say here that to prove how unfortunate

it is for a child to be born of alcoholic or tainted parents, it is quite extraordinary the difference existing between the condition of such an infant as compared to one from clean-living and abstemious parents. I have seen babies born positively caked in a thick kind of yellow substance, of which it took endless patience and time to rid the little body, and when an infant is especially coated in this manner, having developed within the unhealthy wall of a congested and unclean uterus, it is apt sooner or later to develop some weakness which causes illness or death.

There are quite a number of women who come to me to enquire if they are going to have twins. One look is sufficient, and, except in one case, I have always said, "No." Later on, of course, most doctors can ascertain the fact of twins by the sound of the foetal hearts as indicated by the stethoscope.

Only one woman in 500 produces twins, alive or dead. Yet thousands more may *start* twins, although it may never be known. The second fertilised egg or zygote may be blighted almost at once and it merely shrivels to nothing in the maternal womb. Or it may be thrown out at the second month, or later even, in which case what appears to be a miscarriage takes place, and it is usually a surprise to the patient on getting up to find herself still pregnant. I have known a number of such cases, in which the mother has gone the rest of her time quite safely, and

in due course given birth to a healthy child. Here it must be said, however, that where the foetus was sufficiently developed to discern its sex, in the great majority of cases I have read or heard of it has been a male. Personally, I have only come across one recorded case of a female foetus born at three months or so, whilst the twin sister was carried on to the eighth month. She is now a healthy old lady past eighty. It is, however, more than probable that for each of such cases that we hear about there are ten or twenty which are never discovered. At the same time, Garrigue insists that multiple foetation must be looked upon as an abnormal event, and it is certain that there is a marked preponderance of boy-and-girl twins over twin-boys and twin-girls, which goes to show that the tendency for one ovum from each ovary to be fertilised must be far greater than for either ovary by itself to produce two ova at once.

Here I would like to suggest that "mixed-twins" are rather a mixed blessing, in that one or the other seems to encroach on, and gather, more than his or her share of the common supply of health; and whilst they are usually more alike than brother and sister who are not twins, there seems to be a kind of inequality of strength, physical or mental, which gives an unfair start to the less favoured twin.

Regarding the mother's well-being, since girl-twins are usually premature, there is no great extra

output on her part. Similarly mixed-twins are more often early than late arrivals, and though a greater effort be needed, they are far easier to carry than boy-twins. These constitute the greatest strain on the maternal organs for the reason that :

1. Being boys they will probably go to full term—possibly forty weeks.
2. As a consequence their weight and the huge pressure involved will prove very trying and leave undesirable after-effects.
3. The pressure of two infants on the side nearest the liver and appendix will tend to cause pain and trouble with those organs, both during and after pregnancy. To sum up, perhaps there was wisdom in the words of a clever and experienced gynecologist when he said : “ I only hope my wife will never have twin-boys—it’s too much to expect of any woman ! ”

On the other hand, I have heard my mother say—she had twin-girls—“ I never felt so well in my life as after the twins were born.” And possibly the same happy condition may apply to women who are able to produce healthy mixed or boy-twins, who are born soon after the eighth month, before they become so large and heavy as to cause undue pressure on the adjacent as well as on the generative organs.

As regards the various complaints, be it in the early or late months of pregnancy, the majority are the outcome of negligence to conform to the simplest

laws of hygiene. For instance, heartburn and flatulence are due to the wrong diet, or lack of ordinary precaution against colds and chills.

“ Over-salivation ” is a form of indigestion. “ The fidgets ” are the outcome of idleness—of days and hours badly organised. While there should be no rushing about, no late hours or undue quantity of head, or “ leg and arm,” work, there should be a moderate supply of intellectual interest to follow, and household duties to perform.

If a woman is lazy and allows her brain to go fallow during pregnancy, her offspring will be dull and lethargic. If her thoughts are petty and discontented, her child’s brain will be circumscribed and second-rate. Above all, if she indulge in melancholy forebodings—and this temptation is an abiding one with many prospective mothers—her child is likely to be fretful and peevish, and later on will be sure to develop symptoms of morbidity. If only every mother could remember to “ keep smiling ” during the whole period of gestation the world would soon become a far happier place to live in ; a new generation of “ smilers ” would grow up amongst us, ready to weather all the storms of life, and the neurasthenia and other mental ills of humanity might disappear within a generation or so. So much for pre-natal influence. But you may say, “ What of heredity ? What of environment ? ” Could we test the importance of those three forces among the rest of the

animal kingdom, doubtless pre-natal influence would show up very poorly indeed ; but in human beings, where mind plays such an important role in triumphing over matter—and the higher the standard of woman the more does this become evident—we shall see with each succeeding generation the ever-increasing power of pre-natal maternal influence.

It is certain, however, that in some instances it is difficult to retain a cheerful frame of mind all the time ; thus when constipation has always been troublesome and becomes worse with pregnancy, although much may be done to alleviate it, the result is frequently piles of a painful and obstinate nature. A sure palliative and often a gradual cure is as follows : after evacuation of the bowels, instead of using paper use a sponge dipped in hot water—this cleans every crevice of the inflamed and sensitive anus and eases the pain ; then squeeze the sponge out, and use cold water equally applied to the rectum. Then take on your finger a little “ Pazo ” ointment, and introduce it as far up the back passage as is possible. It is wonderful how rapidly the trouble of piles—even in its worst form—may yield to this very simple treatment. I have known cases, threatened with immediate operation, saved from such drastic measures and entirely cured after a time.

There is an old saying that if you have piles you do not have varicose veins elsewhere, and vice versa, but it has to be admitted that this is not always the

case. Nevertheless, there is a certain basis for it, for personally I have not often found the one accompanied by the other.

It may be that the legs are apt to swell towards evening without there being any real vascular disorder ; in such cases the feet should be kept up as much as possible. No matter how busy or poor the housewife, she can do all her darning, sewing, and much of her cooking, or even washing, sitting down, especially after dinner or after tea. If the veins are troublesome, an elastic stocking should be worn, though a cotton one is less than half the price, just as useful, and wears all the longer. It is usually the left leg which is the most apt to give trouble, possibly because of its position nearer the heart. At the same time, the fact that most women who have the largest families and the finest babies never suffer from varicose veins, whilst others suffer from the earliest days of pregnancy, or without becoming pregnant at all, goes to prove that, in itself, the pressure of pregnancy is not the cause of varicose veins, and that there must exist a prior state, or diathesis, that causes the disorder to which pregnancy serves merely as an aggravating cause.

Of every twelve women with varicose veins, seven or eight will have them mainly in the left leg. The worst case that I ever saw was that of a youngish woman who had five sons, besides having had also three " male " miscarriages. Although the right leg

was black and swollen, it was the left leg that had caused her most trouble ever since her girlhood, and when I saw the poor woman the veins were black and knotted, extending right up the thigh and spreading all over the groin. Evidently the left ovary had been affected since childhood, and being poisoned and utterly disabled, the organ was useless, and the female ova completely devitalised. In a case of this kind to operate would be useless, if not impossible, and it is time that we recognised what little place operations should take in the more modern methods of alleviating the varicose condition. Four years ago a successful practitioner in South Africa wrote me that, by an accident of treatment, after having injected 606 into a varicose vein, he found to his surprise that it thus became permanently cured. Gradual shrinkage of the vessels and a rapid cure of the varicose ulcers was effected! In three days the vein was no longer to be felt or seen, and for twenty years there has been no recurrence. "Since then," writes the doctor, "I have treated a great number of women for this condition, on these lines, with most satisfactory results, and without a recurrence of the condition in future pregnancies. The needle is inserted into the lowest point of the varicose vein, the leg is then bandaged and put to bed for four days. The result is a certainty. The operation, on the other hand, does not cure this disorder in a pregnant woman, but drives the condition to

the deeper vessels, and so eventually to phlebitis thrombosis."

In "The Medical Press" of November 2, 1927, there appeared the following: "The non-operative treatment of varicose veins, coagulation being promoted by localised injections, is now a recognised procedure. Many thousands of injections have been recorded in medical literature of the last few years, with but one fatality—a woman who died from pulmonary embolism, the thrombosis having become detached from the great saphenous vein. The injections may be made in the doctor's study, though it is wiser for the patient to be in bed for a few days or longer. Great results have been obtained by the use of 20 per cent. sodium chloride solution as the coagulant."

In dealing with the subject of pregnancy, it is well to touch on a certain happening—the most important of any, and one which almost invariably causes a new, salutary and thrilling departure in the course of gestation. I refer to the process termed "quicken-ing." If this happens in conjunction with the sudden ascent of the uterus out of the pelvis, the woman is apt to feel an unusual degree of nervous agitation, which sometimes ends in faintness, after which she is sensible of a fluttering sensation, which she may or may not recognise as the motion of the child. It is correct to say that an almost immediate betterment of many disagreeable symptoms is noticeable from the moment that a mother feels the motions

of her infant. Sometimes it is as if the child adopts a new line of departure—a certain independence, alleviating and pleasant to the mother, and this sensation of relief comes all the more as a satisfactory change in that it frequently follows a week or two of great depression or faintness, due to uterine upheaval following further development of the foetus. Lately I came across a lady who had bouts of such severe nose-bleeding immediately before the quickening that her doctor advised her lying in bed, and keeping very quiet for two or three days, until it ceased entirely. Some women complain of bearing-down pains, as if about to miscarry, when it is wise also to keep very quiet. Then, if all goes well and the quickening occurs, there comes, to each and all, that all-round amelioration of health, which allows the appetite to increase, and whilst also most women may experience a greater need for sleep, they feel all the more normally energetic during the day-time.

The sixteenth week is spoken of as the usual time for this to occur, but whereas some women experience the sensation as early as the twelfth week, or even sooner, others feel nothing at all until they are well on in the fifth month. Denman says : “ Quickening happens at different periods of pregnancy, from the tenth to the twenty-fifth week, but most commonly about the sixteenth after conception.” I am inclined to think that with the great majority quickening actually occurs about the same time, only that with

some women the sensation passes unnoticed, or is less easily recognised. The movement is so very slight—just a tiny flutter to the right, low down, when a boy ; to the left, high up, when a girl. Then perhaps nothing more for a day or two, till a stronger, more definite quiver of the embryo assures one, if on the look-out, that it is really a foetal movement that is felt. The baby should quicken exactly four months after conception, this occurring on the same day of the week. Five months later the birth should occur on the same day of the week as that of conception and quickening, although the date will fall some three days earlier, to make the thirty-nine weeks, or four days late, to make forty. This is Nature at her best, working in a perfectly normal and healthily-living mother.

It is, of course, quite incorrect to imagine that there is more “ *life* ” at quickening than in the first moment of conception. It is simply that the embryo has gathered size, and has developed limbs and strength to move them. After all the foetus is fast approaching the time when, within a month or two, it may be born “ viable,” that is to say, able to breathe and live ; and, if there be artificial means (by which a six-month premature may be perfectly well reared), it may be kept alive, although it is commonly recognised that six months is the earliest limit of viability. Rodman of Paisley mentions a case he

came across of a baby-girl surviving for a year and nine months, although she had only been carried for nineteen weeks, or under five months! ¹ At three weeks the child measured 13 inches and weighed under 2 lbs. A more extraordinary case is that recorded by Dr. Keiller, in which a child, after four months' gestation, lived for an hour! The foetus was expelled ten days after quickening, and weighed 10 ozs., being 8 inches long. ² Other instances are given by various authorities of infants born at five months and yet having lived for a few hours, although the state was that of "mere existence," without any real expectation of life being continued.

It is peculiar to some women to have the proper time of delivery regularly anticipated, by two or three weeks or even two months, and this for several pregnancies in succession. As a matter of fact there are few reasons for not going the full time unless there be some infirmity of the system, or an indisposition in the uterus to enlarge beyond a certain size. As regards the weights of new born children at the full time, they may range between 2 lbs. to 14 lbs. In fact a child new-born has been recorded by Dr. J. Owen, as being 24 inches in length and turning the scales at 17 lbs. 12 ozs. ³ Anything, however, over 5 or 6 lbs. may be regarded as

¹ "Med. and Ling. Journal," vol. x, p. 455.

² "Edinburgh Monthly Journal," September, 1854., p. 273.

³ "Lancet," December, 1838, p. 477.

normal, while the average weight of an infant is just about 7 lbs. The old saying that "small babies are the easiest to rear" should be remembered by the parents of light-weights, whilst the proud mother of a champion ten-pounder should bear in mind, in all humility, that not only will she herself have to take more rest after such an effort, but that she must not be disappointed if her offspring be less inclined to prosper at first than her neighbour's four-pounder. Above all, there is one thing that every pregnant mother should realise, i.e., the necessity for constant vigilance every day and every hour that she carries her precious burden—for heavy is the responsibility and solemn the thought, that during all those months before its birth she is bringing her whole influence of thought and character to bear on her unborn child.

LABOUR

Here are just a few hints concerning the actual process of parturition.

With a boy, the first symptoms are slight *abdominal* pains, such as before or after an attack of diarrhoea.

With a girl, the first signs are slight pains in the back, as just before or at the beginning of a period.

With a boy, the waters are apt to break fairly early, in any case some time before any "show" appears.

With a girl, a slight "show" starts pretty soon after the pains have set in regularly; and soon it becomes

like a usual period; the waters breaking much later on.

In either case it is best to keep up as long as possible, sitting in a chair by a warm fire—well wrapped up—till the pains become so insistent that one feels it absolutely *necessary to lie down*. The longer one keeps up the better and quicker the birth. To lie up early is to prolong the agony, and here it may be suggested that when labour sets in every mother should be advised not to cry out. If she makes up her mind to this beforehand, she will find the pains twice as easy to bear. There are two reasons for such self-control :

1. She wastes valuable energy needed for the expulsion of the child.
2. She is apt to become hysterical, which leads to convulsive contractions of the uterus, which enormously prolong the process of delivery.

One word from the doctor at this juncture is often sufficient to nip any such lack of self-control in the bud.

With the first baby chloroform may be desirable ; but in thousands of cases it is not by any means necessary. With the second baby it should never be required in the case of an average normal confinement. It is the selfish mother who insists on chloroform ; it is the timid mother who asks for Twilight Sleep, and each time I am satisfied that the baby suffers in a greater or less degree. That which anæst-

thetises the mother, stupifies and depletes the energies of the child. To effect birth satisfactorily it needs all its unconscious wits and energy.

There is a certain minor trouble which should not occur—I refer to the tearing of the perineum, and I insist that if the nurse or the doctor be very careful at delivery to keep the child's head pressing forward instead of backward, as it passes into the world, in nine cases out of ten there need be no laceration. But there must be the precautionary measure taken beforehand by the patient herself, of a daily application of castor-oil to the external parts, which has an extraordinary effect in softening and increasing the elasticity of the genital tissues. And before delivery, when the uterus is making every effort to expel the foetus, why is it necessary to egg on, to force nature, in her gradual workings, by the use of certain injections? Where it is not really necessary on account of some uterine anomaly, surely it is far better that the natural process be left to work out its own salvation. For the slower and surer the explosive movement, the quicker and surer the contraction of the organ after it has emptied itself. It is extraordinary how often, of late years, one hears of the “abnormal amount of displacement after child-birth,” which I deplore to attribute to the modern practice of “hurrying on” the expulsive efforts of the uterus. Why, again, after delivery, should there be any administration internally of castor oil, so deleterious

in its action that according to Dr. Thomson and Dr. Steele “in certain individuals it acts almost drastically, and produces a painful sensation of piles, and occasionally it causes, during its action, deadly faintness.” Also I beg that no ergot be administered; possessing as it does undoubted power in producing vascular contraction, it has also a *strong influence on the spinal cord* and the sympathetic nervous system. Wherever it has been used *abnormal depression* sets in as the natural reaction—and this is so often the *unnatural* consequence of child-birth.

When a delivery has been straightforward there should be no need for such artificial methods of “contraction.” Nature will do her own job, if helped by rest and the support of the binder. The warmth it affords is by no means the least important function of the binder, which not only supports the organs, but protects them from any possible chill during the first few days and weeks.

VII

AFTER-CARE

Nature, the Vicar of the Almighty Lord.—CHAUCER

EVERYTHING is “safely over.” Baby is born and the mother is well. The doctor has taken his cheery departure, and the whole load of responsibility will rest henceforth on the doughty shoulders of the monthly nurse.

If she be clever and understanding the chances are that all will continue to run smoothly. But if she be lacking in these qualities troubles of various kinds will very soon arise. For in a confinement it is when “all is over” that everything begins. The fight is to preserve what has been given, to save, to keep what so easily may be lost, for it is no use blinking facts, and to-day we have to acknowledge that the rate of reduction since 1900 in the mortality of “neo-nati,” or babies under four weeks, has been very little over one-fifth, i.e., from 41 to 32 per cent., so that it is still more than 40 per cent. of the total of infant mortality for the whole year, and the majority, as always, belong to the “stronger” sex. Neo-natal mortality is the great problem still remaining to be solved, in

that babies under a month are dying almost as quickly as ever, whilst thousands more are born but so nurtured in their earliest days as never to become citizens of capacity and utility. In many cases this high death-rate may be traced, of course, far back, to pre-natal influences, and Sir George Newman argued twenty years ago "that infant mortality is above all a social problem of motherhood." Yet it is not a question to be solved with ease, although I am convinced that within the next few years a great stride will, and *must*, be made towards the prevention of infant mortality on the present scale; and my own private belief is that since no man is called upon to endure the pangs of motherhood, it will probably not be a man who will discover the means for preventing the distressing number of women who die in child-bed.

The remedy is, I think, not so far away as is imagined, if only we will open our eyes and see it. People so rarely see the obvious, and I suggest that, just as most troubles—the serious ones—are preventible by the simplest means, so also may this condition of mother and infant mortality be greatly modified by scrapping certain methods in favour of a system governed by individual common sense. Not only do I think so, but I feel sure an *immediate* improvement is possible. In the good—or bad—old days women and new-born babies died of dirt, of filthy surroundings, of unhygienic methods, and probably

a few do still. As a matter of fact, it is a lack of cleanliness before, during and after child-birth that accounts largely for the stupendous mortality of infants in France, and other countries less well-equipped in hygienic nursing than our own. But with us this no longer is a rampant cause, for it is only in rare cases that an expectant mother need be without the best attention when her time has arrived.

But there are other enemies, which if not so obviously dangerous, it is no less necessary to avoid or to fight, but which in my experience there is a tendency not merely to ignore completely, but even to encourage as "necessary." One of the worst is cold. A young mother gave me her account of her experiences in hospital: "Mine," she said, "was a bad case, as Sister told me. When I arrived at the hospital I had a bath, after which I was put immediately on to a kind of table-bed—it was very hard, and though I begged to be allowed to keep about, I was not allowed to move. I longed to get off and walk about, for I was perished with cold. At length they gave me a blanket—but I never once got warm. Had I only been allowed to move and keep warm, I feel sure I'd never have suffered as I did. I felt as if I was on that table hours and hours—and have never really recovered from it."

Here is another description by a woman fresh from a "home": "I lay for hours on that dreadful

narrow hard bed. I shall never forget how cold I was. It seemed as if I had nothing on me all that long, long time. The windows were open and a bitter draught was blowing. I'll never forget it. I was ill for weeks afterwards."

Nothing could, in my opinion, be better calculated than unaccustomed cold to delay the natural labour and intensify the martyrdom of the lying-in patient. The mere fact of being taken to the labour-room must fill the patient with gloomy forebodings, and at such a time the slightest severity in the demeanour of the sister-in-charge is sufficient to cause a physical reaction, which is bad both for mother and child. If a woman needs affection at any time it is then, and if ever cheery warmth is needed and cosy comfort, it is at the time of parturition. A summer confinement is notoriously easier than a winter one, and in cold countries it is a far more protracted process than in hot climates. Warmth is the greatest balm for all suffering ; there is hardly a pain that is not eased by it, and whilst cold hardens and contracts, heat softens and expands those delicate parts where dilation is the one condition needed for a quick and easy delivery. Even animals require good shelter and warmth. If you wish to court milk-fever for your cow, let her calve in the field ; and would you risk losing your mare, let it foal in the open. If you insist on taking unwarrantable risks, leave your windows open to blow in on the mother in labour

or leave her uncovered during or immediately after it, or while she is being tended or suckling her babe.

One hears far too frequently a complaint like this : “ I was chilled to the bone when my babe was born ! No wonder I had that terrible trouble with my bladder afterwards. . . .” Or, “ yes, I had bad abscesses in the breast ; I got chilled lying with the wind blowing from the window whilst I was nursing baby—illnesses and trouble resulting, *each time*, from cold ! ” Is it not time that the authorities in charge of “ God’s air ” in all the hospitals and “ homes ” of England woke up to the fact that a large percentage of patients, unaccustomed to the unrestricted circulation of air, incur much suffering, *not* from their own diseases, but from various kinds of chills taken by being left in such draughts as would suffice to kill the hardiest plant. An old medical friend of mine, speaking of hospitals, used to say bitterly : “ I send a man in with a broken leg, and he dies of bronchitis or pneumonia ! ”

It is said that pneumonia may be caused by shock, or again by the anæsthetic used, but far more often is it caused by a chill caught by the patient whilst lying undressed on the operating table, in an attenuated and weakened condition.

A woman during confinement needs to be kept very warm, and when her infant is put to the breast, for at least the first two or three weeks, the window should be closed. In nine cases out of ten abscess of

the breast comes from cold air on the bared gland. In a majority of cases the inability to pass water for a day or more after parturition is a result of *chill*. I have noticed that whenever the woman is kept properly warm this symptom is unknown. To every woman about to have a baby, I say, "Put on a warm under-vest, a flannel nightgown (if possible), a woolly jacket, and above all wool stockings and *warm slippers*, and keep them on all the time." I am convinced that this precaution saves great discomfort and worse in the next few days.

As for the new-born infants who are *not* "kept warm," but directly after birth are carried away from their mother and laid in a cot placed by an open window, in an empty, often fireless room, or left, as many are nowadays, to sleep alone at night—victims of a horrible, modern Spartan system recently much advocated and followed by inexperienced women without true motherly instincts—one can only pray, "God help them!" There is a certain school of nurses turned out to practise what I regard as sheer atrocities in the case of infants; they are ultra "hygienic" and very expensive, but of the sufferings of the little mortals entrusted to their care the less said the better. This folly being fashionable will abide for a time, till mothers, with their own common sense and mother love re-assert themselves, and return to less barbarous, if less "modern," methods.

It is well known that puppies or kittens born in the

summer develop far quicker than those born in the autumn and winter. It is reasonable also to think that a spring baby will get on quicker than an autumn one. Summer heat would seem to offer the conditions so urgently required for the growth of all young things. Therefore what we have to do is to foster and stimulate such growth by artificial means ; and instead of permitting our infants to share with us the bitter cold, and the wide-open window to which we, with the hardihood born of many winters, have become accustomed, we should see that they live and sleep in an atmosphere which should never fall much below 60 degrees Fahr.

To the unborn there is no winter or summer, heat or cold. They are safe and snug within the womb till suddenly with birth they are thrown into either the warm sunlit world of summer or the chill and damp atmosphere of an icy winter. Were every premature infant popped into an incubator, we should probably save almost all. Were every new-born infant kept warm for the first three weeks of its existence, we should save more than half of those we lose to-day. But how many hospitals have incubators in which to put the prematures, or the full-time atoms of humanity, ill-nourished and puny, unable to stand the cold world, or the cool ward or bedroom they are born in ? One thing, however, can be done : the hot water bottle should be ready, and a good fire by which to bath and dress the mites, to

whom one whiff of icy air from the open window may spell a cold, to develop in a day or two into bronchopneumonia and death.

If a tiny baby “sniffles” soon after birth—“they generally do,” says nurse. Why? Because they suffer from an incipient cold caught the day of their arrival, possibly during the long and chilly operation of their first bath. And what of jaundice? “So many babies are jaundiced,” says the doctor. And it is true. But they are not *born* jaundiced; they become so during the first hours or minutes of their existence. I know a case of a baby, arriving too painlessly and hurriedly to permit of the mother having time to get on to her bed, so that as a consequence she was born on the bare wooden floor. As neither doctor nor nurse had arrived and there was no one at hand, it was fully half an hour before the poor mother could make herself heard, and obtain any help from her neighbour. In such a case it was almost inevitable that jaundice should supervene, and it was only after many months of care that the child gained weight or obtained any hold on life. This is an extreme case, but I am confident that cold is the predisposing cause of jaundice.

It is more than a coincidence that the infants I have personally known die within the first two or three months of birth were in each case taken outdoors before they had even got acclimatised to the temperature of the bedroom they were born in.

No matter how warmly a baby may be wrapped round, one blast of cold wind is sufficient to start the germ of death in the gossamer mucous membranes of the tiny nose and throat. It is a point on which few doctors are agreed, yet one where the motto "safety first" might be relied on with unchallengeable reason, and the "modern" idea of taking a new-born infant outdoors the very next day after it is born is merely courting disaster. I have known a baby three days old nearly suffocated in the arms of its nurse when, rounding a corner, she happened to meet a hurricane of wind from which she vainly tried to shield her small charge. No baby needs to leave the house before the eighth day. The best nurse I ever came across refused to take her babies out before the first fortnight was up, and throughout her long experience she never lost one.

Another point, on which I have touched before, is the folly of taking the child away from the mother for the first critical three nights of its existence. No nurse, especially after the efforts expended during the actual confinement, can be as vigilant as is sometimes necessary, but the mother's care is instinctive, and for the first few days and nights I insist that neither nurse nor baby shall leave the mother's room lest disaster follow.

It is safer also that the mother, for the first few days of confinement, be not left, for untoward things may happen, and I can cite several instances of the

death of women from being left alone at that time. In one case it happened that a young wife, after an exceptionally quick first confinement in the early morning, appeared so well during the afternoon that the nurse put on her bonnet and went out for a walk, leaving the patient asleep. On returning, two hours later, she found her almost at the point of death, severe flooding having suddenly set in ; and it took all that nurse's wit and experience to combat and overcome the danger single-handed, as she dared not even take two minutes off to telephone for the doctor. Happily, such occurrences are rare, but in view of the many contingencies which may arise, it is neither wise nor safe to bank on immunity.

In another instance a baby, lying in its cot, nearly bled to death during a short absence of the nurse on the first afternoon. The child's cord, being short and thick, had become untied, whilst the mother in her bed knew nothing of the baby's peril, and had she known of it would have been equally powerless to help it.

It is true, however, that after a baby is born the mother needs nothing so much as to be left quiet to try to obtain sleep. In order to make her feel comfortably braced and warm, it is essential that a good binder—which, unfortunately, has gone quite out of fashion—be pinned round the abdomen. I have been told by a midwife that the most successful of “accoucheurs” never left the patient until he had fixed the linen round her himself.

“ Now, keep that on, just as I have fixed it, for three weeks,” he would say to the nurse, and his patients got up at the three weeks as though they had never had a baby. It need be no more than an ordinary face towel, with four or five safety pins, but it is on this swathing that will depend the future comfort of the mother. Internal hæmorrhage may well be caused by neglect in putting on the binder insufficiently “ or not at all,” or by “ moving too soon after delivery.”

One hears it foolishly asserted that the binder is not “ natural ”—but neither is chloroform, twilight sleep, the forceps, or the other implements of the lying-in chamber. The savage gives birth to her infant behind a bush, then picks it up and goes on her way ; but since we have long ago departed from such natural conditions, it is absurd to quarrel with the simplest of the homely aids to comfort and beauty—the—abdominal binder.

One usually recognises by her figure the woman who, having had children, has dispensed with this modest aid. She often shows signs of puffiness and enlargement for months or years, whilst her sister, who received the necessary care, remains as comely and slight after her baby as before. Neglect of proper care leaves a white woman only different in degree from the squaw and the Hottentot mother who, after the first baby, lose for ever any claim to their pristine beauty of outline and figure.

There are two remnants of the last generation, however, which may just as well be scrapped at once, for they are bound to disappear soon as surely as did the black pill and the leech of fifty years ago. I refer first to the drastic aperients administered the day following delivery, whereas the bowels should be left quiet for two whole days, whilst on the third day a glycerine enema is all that is necessary to help the bowel movement.

The second relic is the dose of ergot, of which I can truthfully say I have yet to meet the patient who has actually benefited in any way from this drug so administered ; nor can I now find a single medical man who will speak with real enthusiasm of its effect on the uterine organs. Occasionally a third drug, still more noxious, is administered—a dose of bromide, “to soothe the mother and induce sleep.” Restful sleep it never induces, a kind of nightmare, perhaps, but more often a horrible reaction of jumpy restlessness and mental excitability, whilst not a few mothers suffer for weeks from melancholia, largely induced by the action of this powerful and poisonous drug.

As for the aperients remorselessly given to the mother all through the confinement, there is no excuse for harassing the bowel when the whole system calls out for rest and peace in order to pick up the threads of its usual routine. If barley-water, fruit and vegetable-juices be given, there will be no necessity for aperients in the average patient ; while

as for the baby at the breast, it imbibes all the poisons put into the mother's organism, and this accounts largely for the fretty and continuous crying of many new-born babies whose mothers are the victims of this fallacious system.

I know of many a mother who has been allowed a "good meat meal" within a few hours of baby's birth; others are fed every two hours on fish and chicken—and wonder that the result is flatulence and acute constipation. A lying-in woman needs the lightest of foods, such as fruits, salads, vegetables, eggs, milk-foods and barley-water. It is not what she *eats* that matters, but what she can digest and assimilate. As for the rest, the proper system for the mother who can afford it is two weeks in bed with plenty of sleep, and one week on the sofa. The fourth week to potter round and get her strength up. And what is just perfection is to get off to the seaside for a week or two to complete the convalescence. Thus you get a recovery worth having—a renewal of good looks and health, and a fresh lease of life, such as nothing else in the world can supply. For it is not sufficiently known or realised that the most rapid diminution of the womb takes place in the second week after delivery, as from a weight of 1 lb. 5 ozs. it contracts to about 10 ozs. This, then, is the time that rest should be allowed for the organ to pursue in peace its work of contraction. Commencing at about the fourth day only, the transformation is so complete

that at the end of the eighth week not one single fibre of the uterus existing previous to childbirth remains behind.

There is another "modern" idea, dating from somewhere about 1910, against which I declare war. I refer to the "no rest" system. This barbarous method, as applied to our highly civilised women, consists in propping up the unfortunate mother immediately after delivery, and forcing her to sit bolt upright. In vain she implores to be allowed to recline (even a cow has the sense to lie after calving)—but no ; nurse props her up with pillows, and *binderless*, weary, sick and stupid with chloroform, she must sit up. . . . But there is worse to come. On the second or third day the poor woman is carted on to the sofa (if as likely as not she has not been pulled out of bed on the second) and made to "feel her feet," although the discharge may be such as to cause grave inconvenience. Very soon, she is encouraged to trail round—woebegone and miserable—trying to behave as though baby were a month old. But her looks belie her all too terribly. The distended and bulky abdomen makes one wonder whether a twin were not left behind by mistake, and sunken cheeks and dull eyes testify only too clearly to the un wisdom of this misguided practice.

I have been to see such a case just before I write. A young wife, in order to obtain the best care for her second baby after a poor recovery from her first,

engaged a nurse from an institute, at a weekly charge of seven guineas. A fine boy was born and the birth was satisfactory, except for the delayed birth of the placenta, which had a rather "ragged" appearance.

As soon as the effects of the chloroform began to wear off, she was propped bolt upright, "in order to drain off any clots that might be left in the uterus." Exhausted, the mother asked to be allowed to lie flat, and to be supplied with a binder, but these requests were both refused. Every morning she was made to sit up all day, which led to her sewing and reading and other activities, entirely eschewing that perfect repose that she so urgently required. On the tenth day it was suggested that she should be "getting about," but begged to stay in bed two days longer. This she did, but on rising she felt so weak and forlorn that she started to weep; and when I saw her at the third week she was still weeping for no other reason than that of weakness and lack of tone.

"Every fibre of my body feels weary," she complained, "and as to my figure I am almost as large as before!"

"How is Baby?" I asked.

"He has lost two pounds since birth—they say my milk is too rich, so it is being diluted with water."

Looking at her, I said: "Your milk is probably far too poor, a mother's milk is never 'too rich.' You need plenty of milk foods and barley-water yourself. Baby requires more nourishment than

you are giving him. But where is baby ? ” Looking round the room, there was no trace of him. I was taken to a chilly little room, facing north. Near an open window in a cot the child was sniffing and grisling. I touched his face, it was stone cold.

“ He sleeps here alone,” announced the mother. “ It is the very latest idea. I am going by the latest book. He gets all the air and he is fed every four hours—just five minutes at a time.”

“ God help the poor babe,” I thought, but to the mother I could say nothing. She was going by the book. I believe he is still alive—just—but it will not be the fault of the mother or the “ new methods ” if he survives.

There is a French saying, “ L’Homme ne meurt pas—il se tue,” and I am sure that over and over again babies do not die—they are killed.

There is a point which, from various quarters, meets with dissent, and that is the calm acceptance of the fact of the falling-away of new-born babies in the first week. A baby is born, weighing 8 lbs., and no one turns a hair when the scales turn at $7\frac{1}{2}$ lbs. the eighth day.

“ Oh ! ” says the nurse, “ they all lose weight the first week ; they have to settle down and get used to things.” Or again the explanation is volunteered that before birth the tissues are inflated and a natural shrinkage occurs within the first few days. It may, and it does, but should not, for I know of whole

families where the babies did not lose weight, and for the following reasons :

1. There was no Twilight Sleep nor much chloroform ;
2. The baby was never dosed ;
3. It was kept warmly indoors for the first week or two ;
4. The mother's milk was free and pure ;
5. The mother was kept in bed quietly, with baby snoozing in the cot beside her.

And I will go further and say that I know dozens of infants who were not suckled, and who yet gained weight in the first week, even were it but two ounces or so. And here I am bound to say that in my experience the best food for achieving this early result is Benger's, although there are others every bit as good, if not better, when the child is a few months old.

A clever and well-known children's doctor used to admonish the mothers he visited with the timely warning : " Remember babies are all stomach," and he would insist on the special care they require, when bathed, to prevent them being kept naked long enough to get cold and their tiny organs chilled. The warm bath is splendid, but the slow drying on nurse's knee, before a slow fire, with window slightly open, is deadly. No wonder baby yells in loud protest ! Fresh air is certainly necessary, but a draught blowing in on baby, wet and naked, is fatal.

Heat as a remedial agent for infants is not sufficiently realised, and yet as a soother, an anodyne, or a counter irritant, its therapeutical effect is often magical.

It takes some hardihood to say it—especially in England, “the land of fresh air”—but the unvarnished truth is that tens of thousands of mothers and babies are killed annually by “God’s fresh air !” In the good old days babies were over-fed and died. To-day, the same number of neo-nati are under-fed and die, for, as already said, the same mortality continues. Poor little undeveloped mites, premature often, are all fed alike—“every four hours.” It is quite correct to feed normal babies every four hours, since the *normal* digestion takes four hours, of which 100 minutes must be used for the pepsin to operate in the food, of whatever kind, from babyhood to old age ; and we know that any food ingested after the 100 minutes cannot be digested at all ; it is merely burned by the acid of the stomach, because it cannot be dealt with by the pepsins. But the digestion of a very small and delicate baby cannot be natural, nor is its blood circulation anything like normal, especially if it be born in winter and kept in a cold atmosphere all the time. It will take all its vitality to keep body and soul together ; therefore in such cases a child should be fed every three hours at least, if not every two and a half. With a six months premature I have had to feed it every half-hour with a few drops of mother’s milk or Benger’s Food, to keep the little

body warm at all, and so it is with the seven-month infant or the full time, but delicate, winter baby. Such a hard and fast rule as "the four-hourly feed for the normal baby" in no way applies to delicate infants born to parents who themselves may be none too robust—in-bred or over-bred—and there is no doubt that the children of an elderly father or elderly parents are often more difficult to rear.

As regards baby's food, the mother's milk is the best possible, and if she handles herself reasonably and carefully she should be able to nurse her child the full nine months or longer even, unless the menses return, and the strain begins to tell on the mother. It is *not*, of course, normal to menstruate during lactation, and although a considerable percentage of women, unfortunately, do menstruate before weaning, we must consider it as part of the toll we have to pay towards the advantages of civilisation. The positively normal woman who lives very moderately, and suckles her child as long as she wishes, does not see the return of her courses for two or three months after weaning her child. This is the ideal state and offers the generative organs a complete rest from all sexual functions, giving the perfect respite which does so much to ensure the complete upbuilding of the maternal system. It would seem, however, that it is the woman "early" in her periods, inclined to girl-issue, or to a less actively developed right ovary, who is most troubled with a return of

the courses during lactation, the early and profuse periods being likewise the fruits of civilisation.

Unfortunately, there are thousands of women who cannot nurse their babies, though this, again, is largely a question of proper nutrition before baby's arrival.

It is wonderful what the *will* to nurse may achieve in a wife, who with patience and a suitable diet may, after a first failure, achieve complete success with her second or third infant. I have known a woman who managed to suckle her little girl with the left breast only, the right gland in sympathy with a cystic right ovary being quite dry and the nipple inverted. Even one month of suckling will prove helpful in contracting the uterus and preventing displacement, whilst the baby benefits for the first few weeks, and the first few feeds from the maternal breast are purely medicinal, the first milk, termed *colostrum*, being inimitable, and invaluable for the cleansing of baby's digestive organ. But if baby has to be weaned or fed artificially from the start, the first food I recommend is Benger's, made carefully according to directions. At two or three months change this to Savory and Moore's, which I have found to be the best for even the most delicate infant under a year. Brown sugar and a little lime-water should be added to each bottle. Later on, nursery rusks and milk make a most suitable food, whilst a lightly boiled egg, mixed in a glass with tiny pieces

of toasted standard or brown bread, makes a perfect midday meal.

According to Dr. Borchard, "Soups should be barred, because they cause reversal of the osmotic process from the stomach walls into the stomach instead of from the stomach into the lactals."

Dudley Buxton declares beef-tea to be the "most indigestible food given to patients or babies," and I agree with him. No matter how well made, there will be a certain amount of fat or grease left in it. If something of the kind be needed for a change, it is safer to give the baby of ten months or a year old, with his potatoes, a little Bovril, Marmite or Oxo, as these preparations are clear of all fatty grease. For it must be borne in mind that there are quite a number of babies who, once weaned, will not touch milk foods in any form, and become positively ill if forced to take it. The finest and healthiest boy I ever saw was weaned at ten months and then brought up exclusively on Bovril and potatoes! All other foods, except fruits, he utterly refused to look at.

If a baby's bowels are costive no aperient should be given, nor should even the use of an enema be necessary. Orange-juice or prune-juice will nearly always put this right, or, alternatively, a little water in which the day's vegetables have been cooked. If, however, the constipation obstinately persists, a teaspoonful of pure olive oil may be administered, but very carefully, lest the baby should refuse to

swallow it at once and get choked with its gluey thickness. But see that no castor oil, except for "external use" only, cumpers the shelf of your medicine cupboard, any more than the hundred and one noxious aperients that deaden the bowels and lay up a store of trouble for child and mother. There is, however, one peril with regard to fruits that mothers should be warned against—that of giving grapes or any *unpeeled* raw fruit to their little ones. The large round or "earth" worm is thus acquired, and proves a disagreeable and not altogether easy thing of which to rid the child's bowel. Curiously, it is girl babies rather than boys who are most inclined to them, as also to the ordinary thread worms.

Biscuits or sweets at bed-time are bad. Mothers are often cruel enough thus to foster the early deterioration of their children's baby-teeth, which leads to pain and future suffering, as the second dentition may be correspondingly affected. It is a terrible fact that only one English person in 500,000 reaches middle age with flawless teeth, and two out of every three suffer from pyorrhea after the age of forty.

There is another unconscious cruelty enacted in the nursery, which ruins the figure and bearing of eight or nine children out of ten—that is the iniquitous bolster under the pillow, or the *high pillow* on which the child's head is propped up and forward. A very small, hard pillow is all that should be allowed—none at all is better still. Naturally a child seeks

to lie flat, and thus only—since almost all growth is effected at night-time during the hours of sleep—can a child develop straight, with the neck growing column-like from between the flat shoulder blades on each side of a perfectly erect and supple spine. It is thus that, by giving our children straight spines and healthy bodies, they in their turn, when grown up, will beget and produce a finer generation even than their own. For it is only by saving the health of the baby organs, so that they develop normally, that we can help to further their future well-being, giving them the happiness of health and the power to bring perfect children into the world of both sexes, as they desire, and to ensure that fewer and even fewer women be condemned, through no fault of their own, to remain childless.

Half of the scientific world is busy searching for germs accused of causing our death, yet it is to little purpose so long as they neglect to warn people against preparing the soil for those very germs to thrive in. We hear a great deal about cancer research, but little about cancer prevention. Yet no cancer germ can thrive unless the soil be adequately prepared for its reception. And so it is with the many troubles ever-ready to attack the mother and her babe, for since it is generally conceded that, apart from infectious or contagious diseases, the source of nearly all illness is to be traced to the digestive organs, so in dealing with the new-born it should be realised

that if they are kept *warm*, free from drugs and scientifically looked after, they, as well as their mothers, will remain immune from those pathogenic germs which are made welcome by the methods I have attempted to describe. And not only have we to see that mothers give their premature infants and more delicate babies of both sexes a fair start in life, but also that they are warned of the many pitfalls on the path of their own maternal well-being and happiness, and, above all, instructed and encouraged so to protect and cherish the health of their daughters that they may grow up as useful citizens, and able some day, in their turn, to become the “joyful mothers of children”!

APPENDIX

NUTRITION AND SEX

DEVELOPING a little further and in greater detail what I have written in Chapter V, I contend that to say that a "scarcity of food constitutes a katabolic condition favourable to male issue" is hardly correct; but what it may do is to make for moderation, and incidentally a healthy state conducive to greater capacity for bearing a male child. In lower organisms a vegetarian diet reduces the anabolic condition, that favourable to parthenogenesis, or self-reproduction, which was defined by Von Seibold as "the power possessed by certain female animals of producing offspring without sexual union with a male." This "power," however, must be regarded as a degeneration from the ordinary process, in the sense that "under-nourishment" does not mean starvation, but moderate feeding, and, thanks to sufficient exercise, a properly-working digestive system to assimilate it. This would ensure a katabolic habit favourable to male issue, whilst the coddled, over-fed and lazy temperament would flavour of an anabolic diathesis conducive to female issue. To sum up it would seem that femaleness is anabolic preponderance in reproduction, and that a long continued and unrelieved production of females proves an anabolic diathesis resulting probably from a sluggishness of habit, due possibly to improper or over-rich feeding. These conditions, described by most biologists as "favourable to parthenogenesis," mean in

reality a surfeit which produces abnormal and pathological conditions of the organism. But from such deductions to contend, as has been solemnly argued in a scientific journal, that in order to produce a son, a woman should forego all meat, poultry, stout, port, and other heating and fattening foods, whilst, on the other hand, to produce a daughter she should indulge in them extensively, is quite beside the mark. All such matters are auxiliary, and in attempting to modify external conditions one is merely touching the fringe of the real one, namely, the actual state of existence of the ovaries themselves.

Again, when we read such a statement as the following : "The sex of the child is determined by the nourishment of the mother between the date of fertilisation and the second month of foetal life," we have to remember that in championing a belief in such laws as are supposed to govern sex-causation in the lowest plane of animal life, this world runs entirely contrary to the conclusions enunciated plainly and emphatically by nearly all of the latter-day biologists.¹

Dr. Ballantyne warns us that it is not safe to conclude that what occurs in the lower animals will occur in the human subject, for as Rumley Dawson says : "Comparative embryology is at best a doubtful guide, and it is dangerous to argue from analogy, in that there are marked differences in the ova of the mammalia (including the human ovary) and the ova of the fishes, birds, or reptiles."

Dr. Eden rightly says : "The details of the process of fertilisation naturally cannot be studied in the *human*

¹In *The British Medical Journal* of May 28th, 1927, we read : "Certain facts of general biology point directly to the conclusion *that sex in the higher animals is determined at the time of fertilisation*"! And again : "By the workings of an orderly mechanism sex is determined at the time of fertilisation"! Therefore it is evident that no amount of over-nourishment or under-nourishment can possibly affect the sex of the child, once conceived.

species.”¹ Dr. J. Teacher goes so far as to suggest that “each ovum seems to be a law unto itself.”²

Then again, supposing the sex of a child to be dependent solely on nutrition, what will happen to the woman who has had the right tube and ovary removed yet in order to obtain a son cultivates the katabolic tendency? She will have either no child at all or a daughter. Similarly, the woman who has had her left ovary entirely removed, although she be of anabolic habit, will either become the mother of a male, or have no child at all. And this is a rule to which it is more than difficult to find the proverbial exception.

Then again, how can the fact be explained of the thousands of women who, having lived and fared in the same manner year by year, richly or poorly, idly or strenuously, yet every year or two give birth to a boy or a girl in equal numbers! What of the woman who has a pair of boy and girl twins, or quadruplets composed of two of each sex?

What I would insist is that nutrition in itself, and by itself, can in no way directly affect the sex of children. Only as a concomitant condition helpful to the well-being of either the one ovary or the other, in which lies the whole secret of sex-causation, is it worthy of consideration, and merely as a matter of moderate and suitable nutrition as opposed to a richer, if not excessive diet, can it possibly increase the katabolic, or moderate the anabolic, condition of that subject in whom both ovaries are equally normal, healthy and active.

¹ Manual of Midwifery. (1915.)

² Journal of Obstetrics and Gynecology. July, 1903.

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